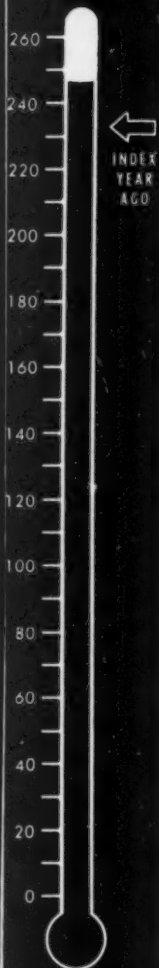


# BUSINESS WEEK

HOW YOU RUN A  
**Campaign Train**  
PAGE 78



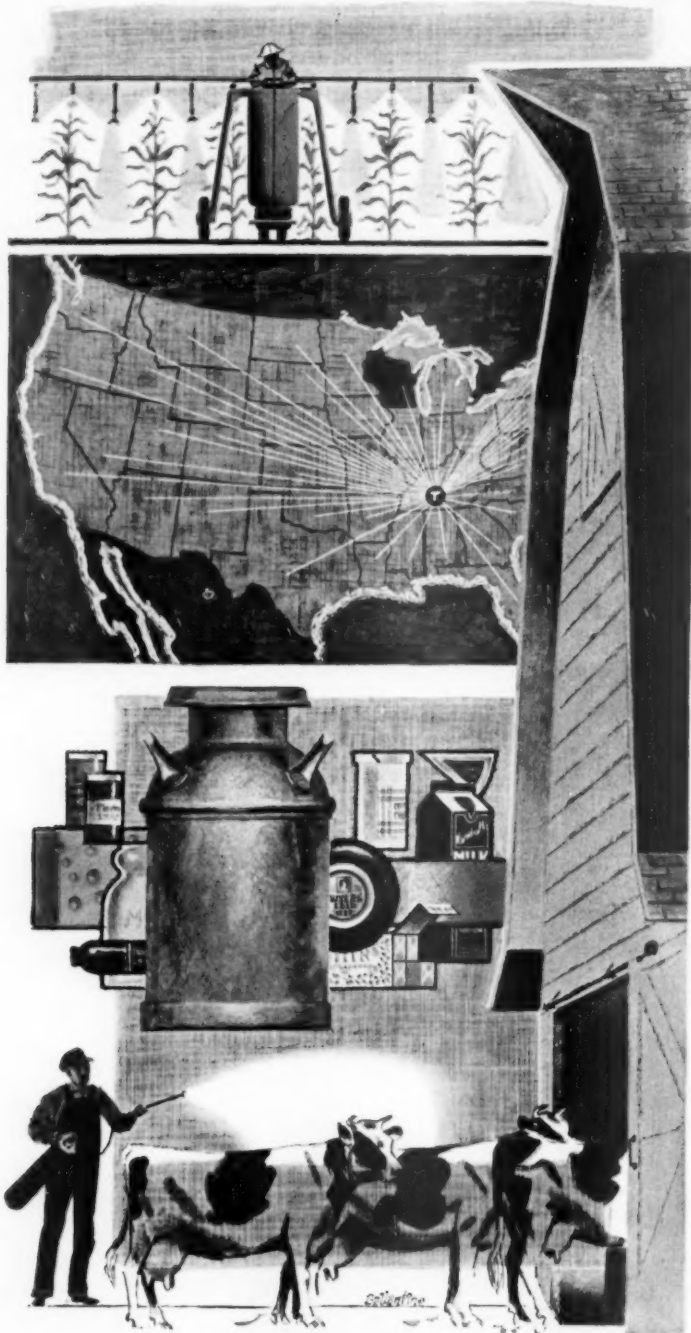
Houghton's Aaron E. Carpenter: To sell to industry, sell service (page 43)

A MCGRAW-HILL PUBLICATION

NOV. 1, 1952

TWENTY-FIVE CENTS

# THERE'S A TOUCH OF **TENNESSEE** IN **WISCONSIN DAIRIES**



*Lindane, the newest high potency insecticide, is putting the biggest bite of all times on insects. In Wisconsin dairy barns, in corn fields, truck gardens and your own back yard, Lindane from **TENNESSEE** effectively controls more species and types of plant and animal insect pests than any other insecticide ever used.*

***TENNESSEE** also supplies Wisconsin industries with sodium benzoate as a preservative, smoke flavoring for foodstuffs, charcoal and Charkets for industrial uses, ferro alloys and pig iron for farm implements. In fact, **TENNESSEE** supplies basic materials to industries in all of the 48 states. That's why **TENNESSEE** is known from Coast to Coast as an industry serving all industry.*



**TENNESSEE**  
**PRODUCTS & CHEMICAL**

*Corporation*

NASHVILLE, TENNESSEE

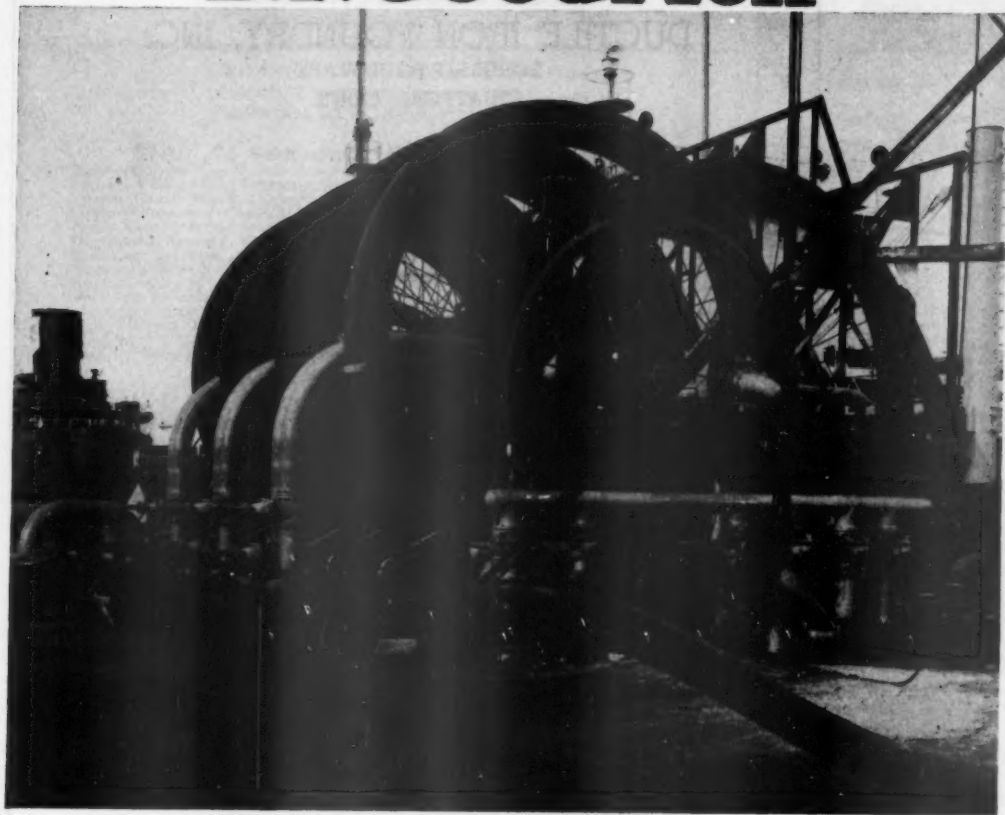
Producers of: FUELS • METALLURGICAL  
PRODUCTS • TENSULATE BUILDING  
PRODUCTS • AROMATIC CHEMICALS  
WOOD CHEMICALS • AGRICULTURAL  
CHEMICALS



RESEARCH KEEPS

# B.F. Goodrich

FIRST IN RUBBER



## Rubber straw gulps five-million-gallon drink

*A typical example of B. F. Goodrich improvement in rubber*

It costs about \$3000 a day to operate an ocean-going oil tanker, so every minute saved in port is important. Those things that look like giant bicycle tires save not minutes but hours, and hundreds of dollars every time a tanker docks. They're big lengths of suction hose—turn a wheel and the proper size hose dips to the tanker; pumps start the suction; 5 million gallons are unloaded in 15 hours.

Fine, except that hose on jobs like this used to choke to death at an early age. Oil makes rubber swell. And as the swelling gradually closed the rub-

ber throat, the flow of oil was reduced, unloading took hours longer while the costly tanker waited.

That was the story until a few years ago. Then B. F. Goodrich engineers perfected a special rubber for hose linings that's oil resisting, and so won't swell. To make the hose strong enough to hold the pressures needed to drive oil at high speeds, they imbedded spirals of steel wire in the hose body.

Today, the improved B. F. Goodrich hose is at work at scores of docks, speeding the delivery of oil and gas, and so cutting their cost.

B. F. Goodrich's experience in rubber engineering has benefited thousands of B. F. Goodrich customers. Often, as in this case, BFG already has the answer when a problem comes up in any field, so no time or money is lost. Research never stops at B. F. Goodrich. To get its latest advantages in any rubber products you use, all you have to do is see your BFG distributor. *The B. F. Goodrich Company, Industrial & General Products Division, Akron, Ohio.*

**B.F. Goodrich**  
RUBBER FOR INDUSTRY

## DUCTILE IRON FOUNDRY, INC.

LORDSHIP BOULEVARD  
STRATFORD, CONN.

September 17, 1952

Mr. J. E. Fifield  
International Nickel Company, Inc.  
Development & Research Div.  
75 Pearl Street  
Hartford 3, Connecticut

Dear Jim:

Today marks our first anniversary and I want you to know how much we appreciate your efforts in our behalf.

Starting a new foundry from scratch is a big job and the suggestions you have made for improving our practices have been quite helpful. We are now producing a steady output of Ductile Iron castings for dozens of customers.

Our heartiest thanks to you and the other members of INCO's technical staff for all their advice.

Very truly yours,

DUCTILE IRON FOUNDRY, INC.

Per:

*Emil J. Laufer*  
Emil J. Laufer, President

EJL/h

**An example  
of INCO  
Technical  
Assistance**

At the present time, the bulk of the nickel produced is being diverted to defense. Through application to the appropriate authorities, nickel is obtainable for the production of engineering alloys for many end uses in defense and

defense-supporting industries. We shall continue to make available to industry technical data and service experience on alloys containing nickel, as dissemination of such information can help promote the intelligent utilization of critical materials.



**THE INTERNATIONAL NICKEL COMPANY, INC.** 67 WALL STREET  
NEW YORK 5, N. Y.

## 3



## America's largest liquid library

It is located near the Kentucky border. As you walk in, your eye is struck by the hundreds of bottles, row upon row, shelf after shelf, that line the huge room.

Each bottle contains a different type of whiskey—samples in Schenley's vast blending "library." Every one has been specially made and aged to bring out its most notable quality: fine bouquet, rich or light body, tangy or mellow flavor.

Drawing upon this library—and their own great scientific skills—Schenley master blenders can combine in any one blend *all* the subtle qualities that please your taste. The Schenley library is the largest in America, in the variety and the quantity of its whiskeys.

This library is a vital part of the complete network of quality controls that guard Schenley whiskeys from the time the grain is grown till —years later—the whiskey is in your glass. This is Schenley's way of making certain that you get the utmost enjoyment in every drop of every drink. *Schenley Distillers, Inc., N. Y. C. ©1952*



Nature's  
unhurried goodness

+

S

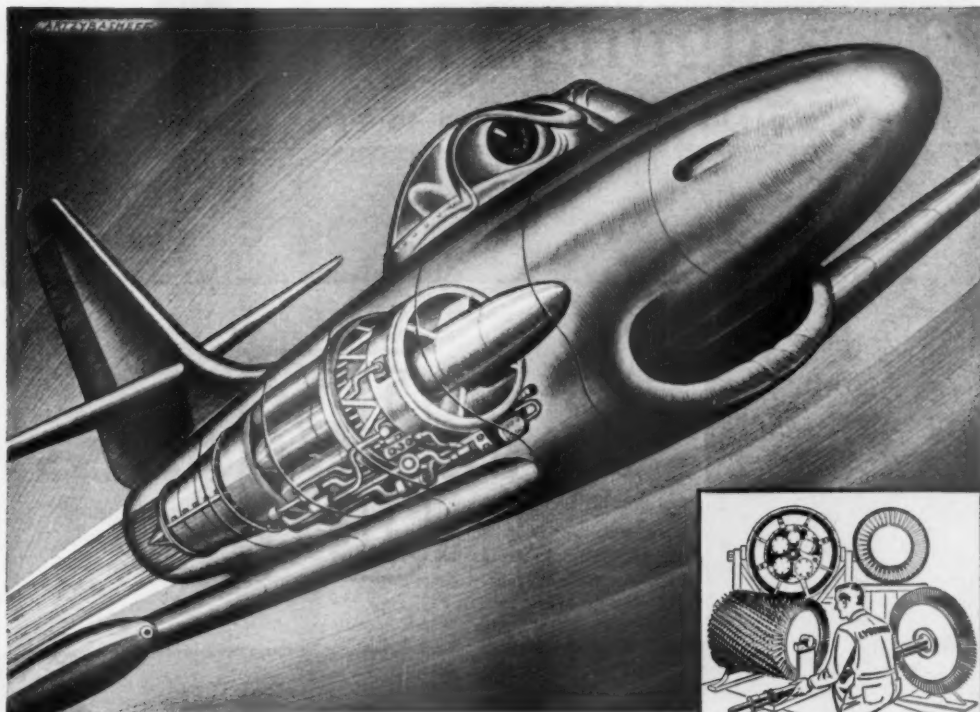
Schenley's  
unmatched skill

=



The best-tasting  
whiskies in ages

# SCHENLEY



## "Blasts" for Jets

To gun a jet to incredible speeds . . . to power it through the intricate twists and turns of combat . . . to "pour it on" in climbs, in dives, in instantaneous bursts of speed—the mighty engine of a jet plane demands parts that are tough, precise and unfailing. To assure such vital performance, General Electric looks to Lycoming as a leading supplier of the major components that go into its superb J-47 jet engine.

Whether you require precision parts of *any* kind . . . or need high-volume production, product development—or a *complete* air-cooled power plant—Lycoming's extensive research facilities and well-rounded experience stand ready to serve you. *Whatever* your problem—look to Lycoming!



For a more complete story on Lycoming's varied abilities and facilities, write—on your company letterhead—for the interesting, illustrated booklet "Let's Look at Lycoming."

For major engine parts that put the "blast" in jets, **Lycoming is one of General Electric's leading sources of precision production.**

AIR-COOLED ENGINES FOR AIRCRAFT AND INDUSTRIAL USES • PRECISION-AND-VOLUME-MACHINE PARTS • GRAY-IRON CASTINGS • STEEL-PLATE FABRICATION

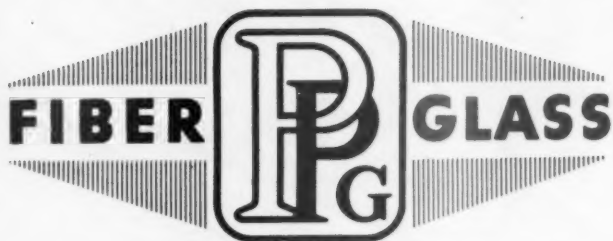
LOOK TO **LYCOMING** FOR RESEARCH  
FOR PRECISION PRODUCTION

LYCOMING-SPENCER DIVISION  
BRIDGEPORT-LYCOMING DIVISION



WILLIAMSPORT, PA.  
STRATFORD, CONN.





*Now!*

## Pittsburgh Plate Glass Company makes FIBER GLASS

On October 1, 1952, Pittsburgh Plate Glass Company began the production of Fiber Glass at its new plant at Shelbyville, Indiana. All of the technological and mass production experience acquired in sixty-nine years of glassmaking are being devoted to the volume manufacture and further development of this wonder fiber to assist in its greater utilization by industry.



# Highlights

## OF THIS NEWEST FIBER GLASS OPERATION

**PLANT LOCATION**—Shelbyville, 27 miles Southeast of Indianapolis, is served by the Pennsylvania and New York Central railroads. The location presents numerous advantages to many users of Fiber Glass.

**PRODUCTION FACILITIES**—The most advanced manufacturing processes and techniques are being employed to assure the production of Fiber Glass which meets the most exacting standards and requirements.

**PRODUCTS**—Two basic forms of Fiber Glass, each in a full range of grades and sizes, are being produced:

**SUPERFINE INSULATION**—Composed of fibers of exceptional fineness—from 3 to 20/100,000 of an inch in diameter—providing greatest thermal and acoustical insulating efficiency-to-weight ratios, extraordinary strength, compressibility and resiliency. In all standard grades and sizes, or fabricated to specifications.

**YARNS, STRANDS AND ROVING**—Continuous filament fiber, twisted and plied to provide yarns of the weights and types required for electrical insulation and industrial and decorative fabrics. Roving, composed of continuous filament strands, bundled in parallel, and chopped strands, consisting of roving cut to lengths of  $\frac{1}{2}$ " to 2", for use in plastics.

**TECHNICAL ASSISTANCE**—A staff of trained engineers is available to lend technical assistance in utilizing PPG Fiber Glass to maximum advantage in all applications, particularly those involving new fabricating methods and products.

**RESEARCH AND DEVELOPMENT**—A program of continuing research and development is established for the purpose of giving users of PPG Fiber Glass every future advantage, from refinements in manufacture to benefits in utilization.

The Unique Properties of  
**PPG FIBER GLASS** Help Make  
Products **BETTER,**  
**SAFER, LIGHTER, STRONGER**

You may be able to realize important advantages in using PPG Fiber Glass. For additional information, please contact Pittsburgh Plate Glass Company, Fiber Glass Division, 632 Duquesne Way, Pittsburgh 22, Pa. . . or district sales offices in Chicago, Detroit, New York, Washington . . . or the nearest PPG Warehouse.



PAINTS • GLASS • CHEMICALS • BRUSHES • PLASTICS

PITTSBURGH PLATE GLASS COMPANY



Stacking cases four tiers high at Alaska Packers, Alameda, California

**Stack Twice As High** . . . store twice as much. do it in half the time with Towmotor fork lift trucks. Towmotor handles *all* types of material. For the name of your nearest Towmotor Representative and a **TOWMOTOR SAFETY KIT**—a portfolio of safety tips and colorful plant safety posters—write Towmotor Corporation, Div. 2, 1226 E. 152nd St., Cleveland 10, Ohio.



**FORK LIFT TRUCKS and TRACTORS**  
RECEIVING • PROCESSING • STORAGE • DISTRIBUTION

## READERS REPORT

### Deep in Taxes

Dear Sir:

Several of us have been discussing the hypothetical case you described in your Personal Business column [BW—Oct. 11 '52, p. 183].

We cannot figure out how a man can actually save \$88 by giving \$1,000 away, no matter what his income tax bracket may be.

We would appreciate a step-by-step explanation of this.

BRUCE H. BACON

VICE-PRESIDENT  
SPITZER PAPER BOX CO.  
TOLEDO, OHIO

• Perhaps the example will be clearer to you this way:

A man is in the 88% income-tax bracket. He has stock, bought more than six months ago, which has increased in value from \$200 to \$1,000.

If he sells the stock, he banks \$792 after paying capital gains tax (26% of \$800). If he gives the stock away, he can take a \$1,000 deduction on his income—reducing his tax \$880 (88% of \$1,000). He loses \$792 by doing this, but gains \$880. He has a net saving of \$88.

As we said, it's an extreme example, but it can be done.

Dear Sir:

On page 183 of the Oct. 11, 1952 issue of *BUSINESS WEEK*, the following statement is made: "A man, age 65, deposits \$10,000 under a contract with the school. A special internal revenue computation allows him to take \$6,601.70 immediately as a charitable deduction off that year's income tax."

Can you advise how the item of \$6,601.70 is computed?

R. K. CONAWAY

PITTSBURGH, PA.

• The computation is part of single life table approved by the Bureau of Internal Revenue for life income contracts. A portion of each investment is considered a charitable contribution, the exact amount depending on the age, or life expectancy, of the donor. At age 35, only \$340 out of every \$1,000 is considered a gift; at age 80, \$820 is figured as charity.

### Should Be a Best Seller

Dear Sir:

In your Aug. 9 issue (page 94) you gave an excellent presentation of Clarence Randall's important book, "A Creed for Free Enterprise."

After tests as to its effectiveness with men and women in all walks, par-



## OUTPUT MULTIPLIED FOUR TIMES

### AN APPLICATION OF KELLER AIR TOOLS

The picture above shows the assembly of automobile hood latches—a job comparable to the assembly operations for thousands of other products.

This work was formerly done with T-handle wrenches, which turned down  $\frac{1}{2}$ " hex nuts to fasten the assembly. With T-wrenches it was a slow, tedious, fatiguing job which lagged

more and more as the day progressed.

When air-powered Keller Nut Setters were substituted for hand wrenches, each nut was run down instantly by merely pressing a trigger. Thus the tedious job became easy, and production jumped to *four times its former rate!*

The savings that resulted

were important, of course. But equally important was the improved attitude of workers toward their jobs. Their working days became less and less tiresome, and they felt the sense of pride that goes with greater accomplishment.

Keller Air Tools—wrenches, drills, grinders, riveters and hoists—have a habit of making tough jobs easy and reducing manufacturing costs.

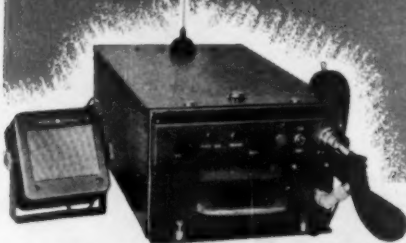


*Air Tools engineered to industry*

**KELLER TOOL COMPANY, GRAND HAVEN, MICH.**

AIR MOTORS • AIR HOISTS • AIR HAMMERS • AIRFEED DRILLS • COMPRESSION RIVETERS • GRINDERS • DRILLS • SCREW DRIVERS • NUT SETTERS

## What one industrial tool can do:



1. Improve supervision
2. Reduce "load time"
3. Control "down time"
4. Cut "deadheading"

# NEW FRONT MOUNT INDUSTRIAL 2-WAY RADIO



Speaker and antenna can be mounted in any position to meet your requirements.

**W**ITH the cost of materials today changing radically in a few months time, you've got to make maximum use of equipment or lose out on your construction bid. This means loading the job with trucks, dozers, shovels and making that equipment work for you every minute. Control with G-E two-way radio gives you instant supervision—works your vehicles efficiently.

**1. Improve supervision**—your foreman can be anywhere on the job site—direct earth moving operations miles away via General Electric 2-way radio.

**2. Cut "deadheading."** Vehicles need not run empty when in-motion orders can be transmitted by radio. Ten trucks with radio often do work of 30 without it.

**3. Control "down time."** Trucks out of service can report breakdowns in seconds, be back on the job quickly.

**4. Reduce "load time."** Foremen need only a few minutes to anticipate requirements when vehicles are "on call" instantly through a radio dispatcher. Idle trucks waste your money.

The CAS\* man at the G-E office near you has studies on typical construction job savings made possible by G-E radio. These facts are eye-openers. Why not call him today?

\*Communications Advisory Service

**GENERAL  ELECTRIC**

ticularly educators and clergymen, this foundation decided that the book deserved the widest possible distribution. The rights were secured for a low-cost edition. The first printing is 150,000 copies.

Movements are under way in Indiana, backed by the Indianapolis Chamber of Commerce and Mr. David Cunningham, vice-president of the Tokheim Oil Tank & Pump Co., to place a copy of the book in the hands of each of the 36,000 teachers in primary and secondary schools, public and parochial, and colleges and universities, and similar efforts are under way in other states.

The price for the current edition to the general public is 50¢ per copy, but a special price has been named for distribution on a citywide and statewide basis to educators and clergymen.

FRED H. SEXAUER

PRESIDENT  
CONSTITUTION & FREE ENTERPRISE  
FOUNDATION  
NEW YORK, N. Y.

## Fertilizer Terms Raked

Dear Sir:

In reading an article in the Sept. 13, 1952, issue entitled "Farm Demand for Fertilizer Hits Peak," I find that . . . the last full paragraph in the first column on page 54 carries the statement that potash production lends itself to easy expansion. The reason given by your writer is that it is simply a matter of digging the rock out of the ground and crushing it. It is evident that he is not aware of the fact that refineries worth millions of dollars are on top of the ground to process each ton of potash ore.

W. H. APPLETON

POTASH CO. OF AMERICA  
ATLANTA, GA.

• In saying "... potash production, the kind that's easiest to expand," we meant that, relatively speaking, it's much easier to expand than the other types of fertilizer. We did realize, of course, that millions of dollars are involved in that expression "easiest to expand," as you say.

Dear Sir:

You had a commendable review of the fertilizer situation in the Sept. 13, 1952, issue (page 54) of BUSINESS WEEK. It was comprehensive, concise, and persuasive. Unfortunately, its high quality was marred by a misinterpretation. I quote: "The familiar '5-10-5' formula, for instance, means that the sack contains 5% nitrogen, 10% phosphorus, and 5% potash. The rest is filler." No, the rest is not filler! . . .

"Filler" is associated in the mind of many with "sand" or other worthless



# Pliofilm— tailor-made for increased profits

**SELF-SERVICE** meat packaging, swift and convenient as it is for the buyer, wasn't always so convenient for the seller.

Packaging film that would rip and tear when rough-handled by choosy customers boosted selling costs. If a film was tough enough to stand the gaff, it wasn't transparent enough to display the needed rich red meat appeal.

Then PLIOFILM entered the picture. Goodyear's famous moistureproof film appeared in a new form that added to the usual PLIOFILM advantages an unusual toughness that is ideally suited to meat packaging. Soft and pliable, PLIOFILM conforms to the shape of the meat, without wrinkling, makes an attractive window-clear package.

This new type of PLIOFILM is so strong and puncture-resistant, it virtually eliminates rewraps and double wraps. Its yield is greater than conventional films, making it far more economical to use. And by barring moisture gain or loss, it keeps meat fresh and appetizing far longer.

The PLIOFILM positive heat-seal eliminates messy leaking packages—decreases wrapping cost and customer complaints.

What can PLIOFILM do for you? Listen to this:

*PLIOFILM is air-, moisture-, liquid-proof—keeps wanted moisture in, unwanted moisture out. It has dimensional stability, doesn't pucker or shrink. And its transparency lends gleaming sales appeal to any package.*

PLIOFILM is adaptable to all types of machine packaging. It also heat-seals readily with hand tools in packaging at store level.

Want to hear more? Fill out the coupon below and we'll mail you—free of charge—a copy of "Plain Facts About Pliofilm"—a booklet that tells you all you want to know about this moistureproof, transparent film.

Pliofilm, a rubber hydrochloride—T. M. The Goodyear Tire & Rubber Company, Akron, Ohio

GOODYEAR, PLIOFILM DEPT., AKRON 16, OHIO

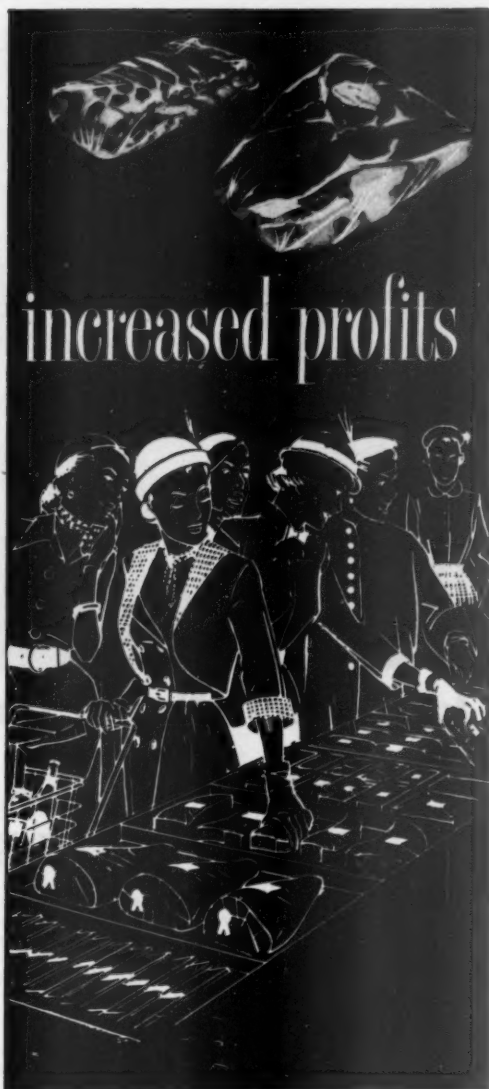
Please send me free copy of "Plain Facts About Pliofilm"

Name

Firm

Address

City and State



GOOD THINGS ARE BETTER IN

# Pliofilm

3-WAY PROTECTION  
AGAINST AIR,  
MOISTURE,  
LIQUIDS

**GOODYEAR**  
PACKAGING FILM



## keep your finger on the Pulse of Texas!

**Texas is industrial news, nationally and internationally. PULSE of Texas will keep you posted on the news from Texas.**

These regular mailings are a new service of the Houston Pipe Line Company, written especially for busy men. Each issue contains a brief summary of current Texas business trends plus an article that details information on some specific subject of interest to management in different fields. It's offered to you without obligation, of course.



### Keep Pulse on File

You will want the information supplied by this new service in your files; you will especially want your technical men\* to have it handy.

### ... and if Texas is in Your Plans

Let us show you in person the many advantages that Texas offers expanding and decentralizing industries. Plan to visit sunny, hospitable Texas during these winter months. Let us know when

you're coming, and we'll arrange to show you Houston and the Texas Coastal Corridor. Meanwhile, ask for *PULSE of Texas*; you'll find it stimulating.

## HOUSTON PIPE LINE CO.

Subsidiary of Houston Oil Company of Texas

Wholesalers of  
Natural



\*If you'll send us their names when you send your own, we'll be glad to see that they also receive personally addressed copies of *PULSE of Texas*.

material. In the fertilizer referred to, it appears that the sum of the plant foods (and it is phosphoric acid, not "phosphorus," in the formula, to be exact) is 20% or 400 lb. in the ton and according to the quotation, the rest or 1,600 lb. must be "filler."

The facts are quite different. Briefly, they may be summarized in nontechnical language like this: A fertilizer has to be manufactured from materials which carry the essential plant nutrients and are capable of releasing the nutrients readily when placed in the soil. . . . These are chemical compounds just like all material substances and are not 100% plantfood. . . . One experiences the same situation when he buys coffee or tea; the coffee grounds or tea leaves left after the coffee or tea is brewed would be the same "filler," and are unavoidable in the preparation of the desired beverage. . . . Yet, with this difference: In the case of fertilizer the sulfur or calcium or other chemical element of the fertilizer components does have some nutrient value to plant life and is therefore not all waste. . . .

In some low grades of fertilizer, such as 3-9-6 which were common a generation ago, it was necessary to add inert material, even sand, "make-weight"—in order to bring the formula up to the required 2,000 lb. (ton weight). Such low grade fertilizer is very uncommon at present, and when made it is at the insistence of some farmers demanding a low priced fertilizer. The largest percentage of present-day analyses average closer to 25% to 30% plant nutrients and have no room in them to be filled with "make-weight filler."

V. SAUCHELLI

DIRECTOR AGRICULTURAL RESEARCH  
DAVISON CHEMICAL CORP.  
BALTIMORE, MD.

### Twin City Dilemma

Dear Sir:

. . . In your Oct. 11, 1952, edition, page 124, you list planned post-war shopping centers. Among those listed is the Golden Rule, Minneapolis, \$10-million shopping center.

For your information, and to correct the erroneous impression left by the information given out by your fine publication, I want you to know that the Golden Rule is located in St. Paul and has been located in our city for over half a century. The contemplated \$10-million shopping center proposed by the Golden Rule of St. Paul will be in Ramsey County just a few short paces outside the city limits of St. Paul and several miles from the confines of the city of Minneapolis.

MILTON ROSEN

COMMISSIONER OF PUBLIC WORKS  
ST. PAUL, MINN.



## STRAIT JACKET FOR A FIREBUG

When rural electrification came along, farmers found themselves with the most useful of all servants . . . electricity . . . but with it a *big* headache.

The barn wire available at the time wasn't good enough. Moisture in barns was—still is—excessive, and the insulation on the wire soaked it up.

Result? The bare copper was exposed in an incredibly short time. Then poof! When wires crossed, there was trouble. Often lifetime savings went up in flames.

National Electric met the situation with a *new* idea, a new wire insulated and sheathed with Neoprene. The firebug found itself in a strait jacket. Farmers breathed easier.



It isn't a new experience for National Electric to pioneer with a revolutionary development. National Electric has led the electrical industry many times . . . a good company to know.

EVERYTHING IN WIRING POINTS TO

**National Electric Products**

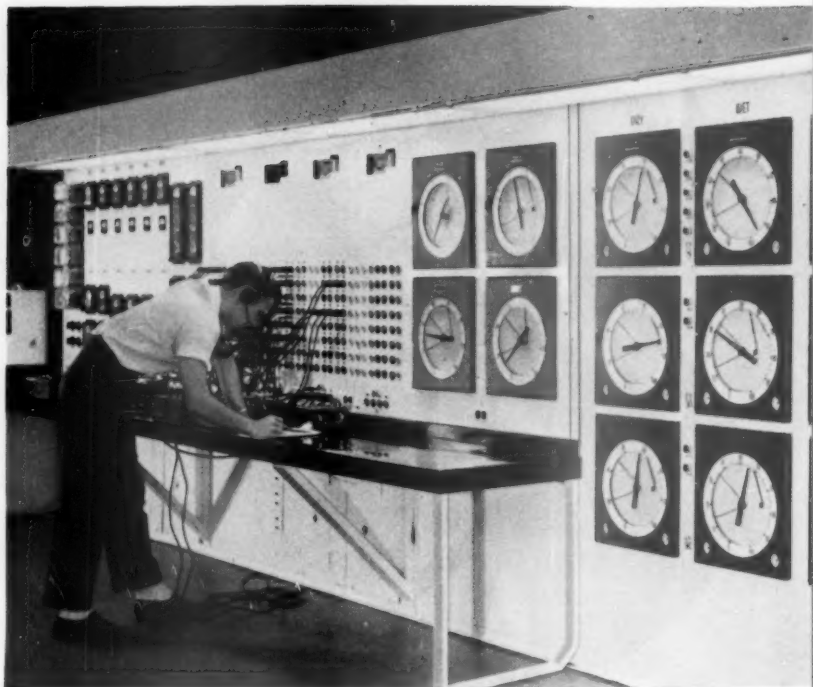
PITTSBURGH, PA.

3 Plants • 7 Warehouses • 42 Sales Offices

World's largest manufacturer of a complete line of electrical roughing-in materials



**Indiana.** Photo at right shows Honeywell Brown Instruments used for precision control in Harvester's six-room refrigeration experimental lab in the Evansville works. Instruments measure water temperature differential, control air conditioning temperature operations and humidity.



## Why International Harvester Uses Honeywell Customized Temperature Control on a Nationwide Basis

*Systems provide precision industrial control, help insure comfort and efficiency*

If you were to take a handful of drawing pins and locate on a map all the U. S. plants and offices of International Harvester, you'd soon see how the company's facilities spread from the home office in Chicago (photo at left) to cover the entire country.

And anywhere you located a Harvester operation, chances are good that you'd pinpoint a Honeywell installation.

Because Harvester uses Honeywell Customized Temperature Control on a nationwide basis—for industrial control, and for comfort control. And with good reason.

Honeywell Customized Temperature Control is *flexible*. That means it can meet

almost any industrial control problem you might name—from controlling humidity within two per cent to regulating the thickness of an oil film in terms of a thousandth of an inch.

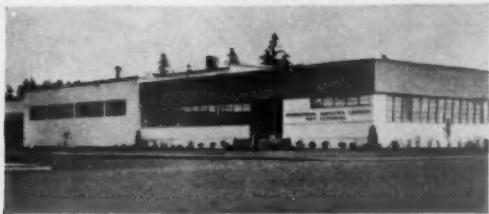
In *comfort* applications, Honeywell Customized Temperature Control helps insure employee efficiency by providing superior indoor "climate."

And when it comes to *service*, there's always a "local Honeywell office" nearby to provide replacement parts, skilled maintenance men and control engineers to help with your planning. Because Honeywell maintains 96 offices in key cities across the nation.





**Maryland.** Throughout the Harvester organization, the contribution proper indoor "climate" makes to employee efficiency is well understood. Thus, in general office areas like the one above—in the company's Baltimore parts depot—you'll find Honeywell Customized Temperature Control in charge of comfort.



**Oregon.** Office areas in Harvester's Portland parts depot are scientifically zoned for comfort—according to occupancy, use and exposure. A sensitive Honeywell thermostat guards the comfort level in each zone. And in the warehouse area, separate controls for every unit heater are provided by the Honeywell Customized Temperature Control installation.



**Iowa.** Heating of warehouse areas in Harvester's Des Moines general sales and motor truck sales district office is economically controlled for maximum large-area comfort by Honeywell Customized Temperature Control. Location of unit heaters and their individual temperature controls was planned to meet occupancy, use and exposure factors.

*For Comfortable, Even Temperature in New or Existing  
Buildings—of Any Size—Use Honeywell Customized Temperature Control*

Whether it's a factory, office, hospital, apartment, store, school, garage—or any size building—new or existing, Honeywell Customized Temperature Control can help meet your heating, ventilating, air conditioning and industrial control problems.

Once equipped with Honeywell Customized Temperature Control, you'll have an ideal indoor "climate"—and save fuel besides.

And with a complete line of pneumatic, electric and electronic controls to choose from, Honeywell Customized Temperature Control offers you the greatest flexibility in design.

Then, too, when it comes to performance, Honeywell-built controls assure years of trouble-free operation. And they're backed by the finest service organization in the controls industry.

For full facts on Honeywell Customized Temperature Control, call your architect, heating engineer or local Honeywell office. There are 96 across the nation. Or mail the coupon today.

**MINNEAPOLIS  
Honeywell**



*First in Controls*

MINNEAPOLIS-HONEYWELL REGULATOR CO.  
Dept. BW-11-231, Minneapolis 8, Minnesota  
Gentlemen: I'm interested in learning more about how Honeywell Customized Temperature Control can help my business.

Name \_\_\_\_\_

Firm Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_





You Spent at least \$6,000  
to create his job... will you  
spend \$2.30 to Protect it?

Eye Accidents Cost  
\$176,000,000  
a year in LOST  
MAN HOURS alone\*

To give a skilled worker the tools and machines to produce, industry invests \$6,000 or more per job. If you lose his skill due to an industrial eye accident, you tie up your \$6,000 completely if he has no adequate substitute. You lose the production his tools turn out. And if his is a critical "bottleneck" operation, you may tie up entire plant output.

Even a production slowdown is grim business in these days of high break even points. Why risk it because of a costly eye accident, when the average cost of a pair of safety goggles that can prevent his eye accident is only \$2.30? Call your nearest AO Branch Office and learn how an AO Eye Protection Program can save money well into four figures annually.

\*Estimate. Industrial eye injuries cost over \$5 per employed worker per year—with compensation averaging nearly \$400 per injured man.

American Optical  
SAFETY PRODUCTS DIVISION



Write American Optical Company,  
445 Vision Park, for free booklet  
"Improved Industrial Vision" tell-  
ing how AO's Industrial Vision  
Program cuts costs, increases  
production, decreases accidents.

SOUTHBRIDGE, MASSACHUSETTS

BRANCHES IN PRINCIPAL CITIES

# BUSINESS OUTLOOK

**BUSINESS WEEK**  
**NOVEMBER 1, 1952**



Business, to the surprise of hardly anyone, is certainly humming.

Steel is running at close to 107% of rated capacity. Auto output is at a 16-month high (although well below its 1950 top). Use of electric power is at new peaks, averaging about 7% ahead of a year ago.

And the Federal Reserve's index confirms what Business Week's index has been telling you: September industrial output was at 225 and October's preliminary figure is 226—both postwar records.

Capital expansion—a mainstay when business stuttered this year—may not contribute quite so much to the general health in 1953 (page 27).

Outlays for new plant and equipment probably are over the hump. They may not go down much in 1953, but they won't match 1952.

Bear in mind, though, that the figures are preliminary. Actual totals are more likely to go up than down. That, to date, has been the typical postwar experience. (It's easier to add to capital spending than to cut building contracts or machinery orders already placed.)

Hardest to estimate for 1953 are outlays for commercial expansion.

These programs will get more materials than this year. That's obvious. But it's also true that such projects are easier to turn on and off than expansion in manufacturing. They vary with consumer spending.

Business demand for money will remain very large, at least until early next year. But it will fall more sharply than new plant outlays.

Corporations anticipate their financial needs—borrow before they build. That has contributed to 1952's money market stress, but it won't keep up in the months to come.

Even more important, though, working capital needs will top off.

Rising sales and rising inventories boost money requirements now. But both are nearing a peak, may even dip sharply sometime next year.

How much bank loans will cost still is a nip and tuck thing.

There's a lot of talk about the big New York banks raising their 3% prime rate—the lowest charge to the choicest, rock-ribbed customers.

To some banks, though, that is getting academic. They earn more on their money by classifying fewer and fewer borrowers as "prime."

If it doesn't go up soon, the 3% minimum interest rate on banks' loans may not be raised at all.

Seasonal demand influences this, short run. Loans are rising now, as wholesalers and retailers borrow to carry Christmas inventory and credit sales. But after the holidays, these loans will taper off—and rates may soften.

Bond markets, the last few days, have moved upward—warily. That could result in lower interest on long-term corporate borrowing.

The trend still isn't well defined. It might be premature—or even a flash in the pan. But it has to be watched. Suppose business slips next year. That would cut demand for money. At the same time, Washington would try to turn the tide by easing credit. The combination could bring interest rates down importantly.

# BUSINESS OUTLOOK (Continued)

**BUSINESS WEEK**  
**NOVEMBER 1, 1952**

Corporations thinking of borrowing for the long haul are in a box: (1) Interest has been going up for months—and may go still higher. (2) Yet there is a chance of getting funds more cheaply next year.

Many companies now are betting on higher rates. They are even funding low-rate, medium-term debt on a longer-term, higher-rate basis.

(This, of course, does more than simply get the benefit of today's rates for a stipulated period of years. It also postpones maturities that might be troublesome—bequeaths them to future managers.)

•  
**Long-term borrowing, to beat higher rates, could backfire.**

It might turn out as with the railroads, 40-odd years ago. Many sold bonds maturing after the year 2,000.

So fascinated were they with the way interest rates had fallen that some even forgot to write optional call dates into the indentures.

They never expected to see money so cheap again, borrowed as much as they could for as long as they could. For over 30 years, it paid.

•  
**Here's one sure thing: Don't sell bonds at this late date to broaden your excess-profits-tax base.**

First, the EPT is almost sure to come off, in whole or in part, next year. Further, if business slumps, you may not even be able to find work for the money you have now.

•  
**Pulling and hauling still goes on over steel for 1953's autos, but 1952 results at least are taking pretty clear shape.**

Production of new passenger cars in this country won't fall far short of 4½-million for the year. (The total for the first 10 months seems to have gone something over 3½-million.)

**Truck output added about 975,000 for the 10 months; it will bring the U.S. total for cars and trucks above 5.7-million for the year.**

That compares with 6.7-million last year, 8-million in 1950.

•  
**Production of new automobiles this year will very little more than take care of "normal" obsolescence. That's figuring that cars don't last, on the average, for more than 10 years.**

Hence you can reason that 1952 shows a "new-car deficit"—subtracting the number produced from those needed to satisfy the market's growth.

This, however, won't cause auto companies' sales managers to relax. They face, in 1953, their first real postwar challenge.

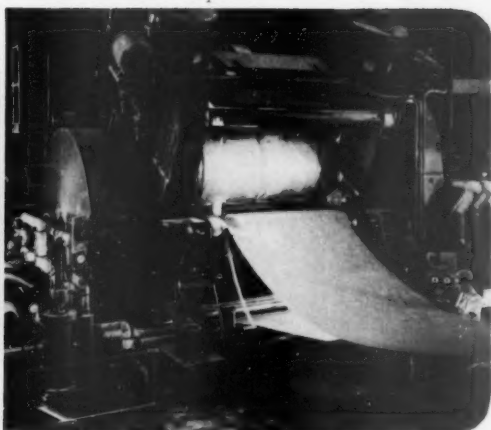
•  
**Watch prices on steel scrap. They may give the first sign of easing in steel supply—well before mill output shows any downturn.**

Prices may not weaken any time soon. But some suppliers already are saying, "Get the scrap out; don't take a chance on the market."

•  
**Which index do you use? Dept. of Commerce lists a 7% gain over a year ago in all retail sales for September; the Federal Reserve's figures on department store volume were virtually unchanged.**

This discrepancy has come up time and again. You can make the consumer out a spendthrift or a tightwad; just pick the figure that suits.

# Logs or Linoleum



## ... industry cuts costs through GULF PERIODIC CONSULTATION SERVICE

From this one source you can get practical assistance on any problem that involves a petroleum product!

Gulf Periodic Consultation Service makes available to you the cooperative counsel of experienced sales and staff engineers on the selection and application of lubricants, fuels, rust preventives, solvents, waxes, cutting oils, and special process oils.

Their recommendations and suggestions nearly always result in lower-cost operation—and that's exactly what they have constantly in mind!

Gulf Periodic Consultation Service is available to mines, quarries, plants, railroads, contractors, fleet, and marine operators from Maine to New Mexico. Send the coupon for a copy of an informative booklet on the contributions this advanced

petroleum engineering service can make toward improving your production and trimming your costs.



Gulf Oil Corporation · Gulf Refining Company  
719 Gulf Building, Pittsburgh 30, Pa.

Please send me without obligation a copy of your booklet "Gulf Periodic Consultation Service."

Name.....

Company.....

Title.....

Address.....

# New "See Thru" Test Bares True Facts on Motor Greasing

Now you can see what really happens inside a bearing when you grease it. You can see that grease channels through a bearing...that it does not flush out old, contaminated grease—even though the bearing was seriously over-greased.

From these actual Westinghouse laboratory tests you can see that field greasing leaves much to be desired. The best place to grease a bearing is in the manufacturer's plant. There, conditions are ideal. So why not let them do the greasing for you.

Install the modern pre-lubricated motor—

the Life-Line—and throw your grease guns away. You'll eliminate bearing failures due to over-greasing, under-greasing, using the wrong type of grease, and the entrance of dirt and other foreign particles.

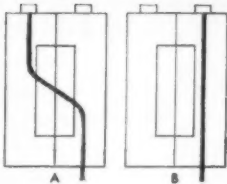
*How can you do away with greasing troubles?*

**THE ANSWER:**

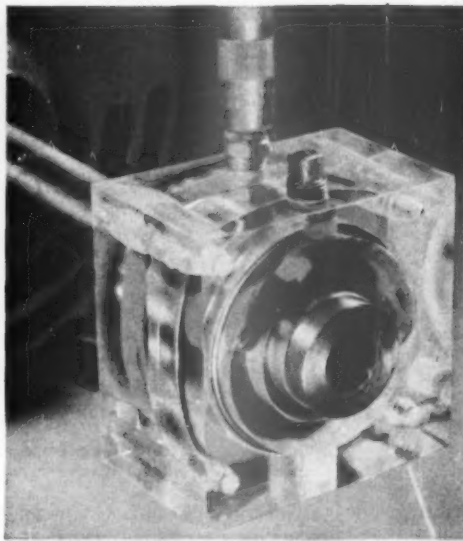
**The way to grease a modern motor is DON'T.**



**ABOVE**—The test began with a Lucite bearing housing—made to the same exacting tolerances as a metal bearing housing. Grease stained red in the open bearing simulates "old" grease. Yellow grease represents "new" grease.



**AT RIGHT**—The drawing shows the two most popular methods of bearing lubrication, (a) crossover and (b) straight through.



**TEST NO. 1 (PART 1)**—Notice the crossover lubrication. Yellow grease is being forced into the bearing housing but only replaces red grease in two places around the race.



**YOU CAN BE SURE...IF IT'S**  
**Westinghouse**

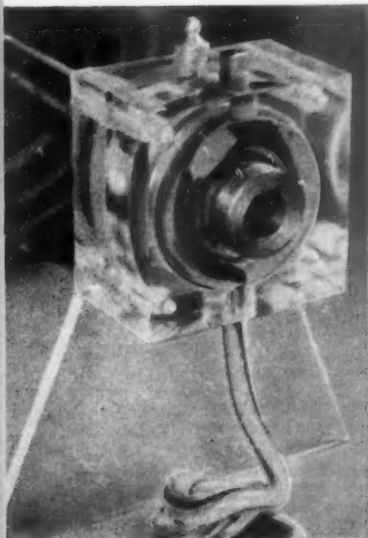
***Life-Line* MOTORS**

**FREE BOOK...MOVIE.** Free book, B-5816, gives complete details of all three greasing tests. Also ask your Westinghouse salesman to show you the new movie that shows these greasing tests in color. Westinghouse Electric Corporation, P.O. Box 868, Pittsburgh 30, Pa. J-21716

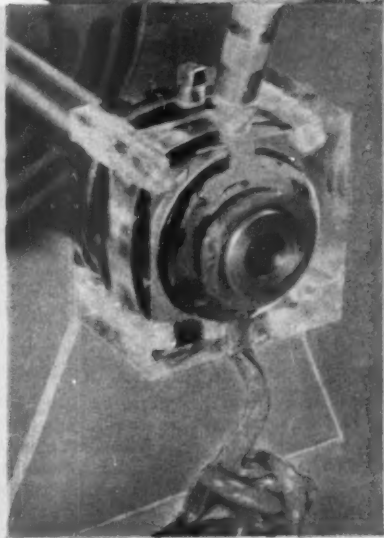




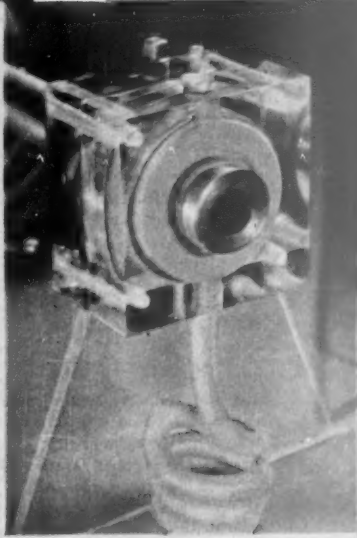
Here are the results of test No. 1 shown below. Note that very little of the old red grease has been replaced . . . practically none around the ball bearings themselves — proof that you can't purge a bearing with a gun.



**TEST NO. 1 (PART 2)**—More grease has been pumped through the bearing than would be pumped through in many greasings. How much "old" grease has been replaced? Very little! You haven't come close to cleaning the bearing.



**TEST NO. 2**—With the motor running, a large amount of grease has been pumped through. Notice that it has forced itself out onto the motor shaft. On a motor, this grease would be forced into the windings. The bearing is still far from being cleaned of its old grease.



**TEST NO. 3**—Here are the results of the straight-through type of greasing. Practically no grease has been replaced. The grease continues to channel through the bearing at the same place regardless of how much grease you pump through.



## Retailing... and The National City Bank of New York

Here's an industry that is making progress by going backwards... back to principles of retailing demonstrated by the general store, with its variety of merchandise, and the itinerant peddler who carried his wares to his customers.

City department stores and supermarkets—the general stores of today—are branching out into shopping centers in the suburbs to get closer to their customers. Retailers are sending salesmen out to push doorbells, and selling a large volume of hosiery, cosmetics, brushes, appliances, and other items thereby. And they're moving huge amounts of every kind of merchandise by getting printed salesmen—catalogs and flyers—right into the home.

Today's self-service stores, open displays, vending machines, and modern packaging are helping customers shop faster and more efficiently than ever before. At the same time, high sales volume and progressive

management enable retailers to bring wider and wider selections of merchandise to their customers every year.

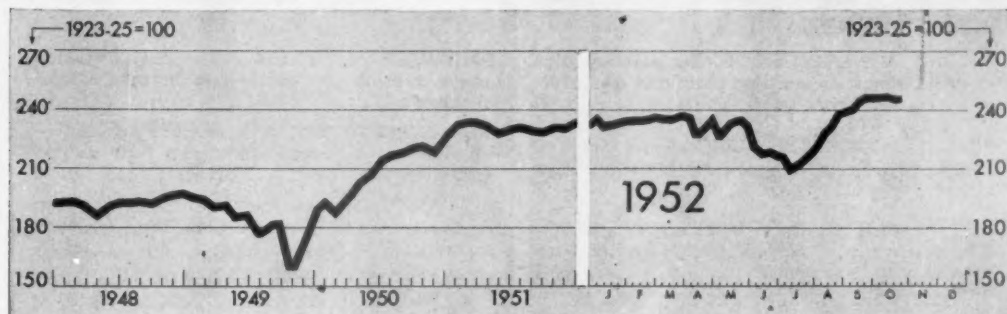
To handle its daily volume of over 500 million dollars, the retailing industry needs fast, extensive, and experienced banking facilities. This is why so many retailing establishments, large and small, come to The National City Bank of New York. Its unparalleled resources and complete facilities are available in this country through 67 Branches in Greater New York and correspondent banks in every state. Overseas the Bank has 57 Branches and correspondent banks in every commercially important world city.

Member Federal Deposit Insurance Corporation

*First in World Wide Banking*



# FIGURES OF THE WEEK



**Business Week Index (above)** . . . . .

	\$ Latest Week	Preceding Week	Month Ago	Year Ago	1946 Average
Business Week Index (above)	246.5	246.2	246.7	233.4	173.1

## PRODUCTION

Steel ingot production (thousands of tons)	2,199	2,221	2,195	2,089	1,281
Production of automobiles and trucks	145,057	138,088	141,228	121,215	62,880
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands)	\$50,504	\$48,730	\$43,062	\$33,950	\$17,083
Electric power output (millions of kilowatt-hours)	7,696	7,681	7,625	7,234	4,238
Crude oil and condensate production (daily av., thousands of bbls.)	6,538	6,528	6,507	6,340	4,751
Bituminous coal production (daily average, thousands of tons)	1,387	1,508	1,930	1,893	1,745

## TRADE

Carloadings: manufactures, misc., and L.C.I. (daily av., thousands of cars)	83	82	80	84	82
Carloadings: all other (daily av., thousands of cars)	57	59	65	64	53
Department store sales (change from same week of preceding year)	+6%	+7%	+1%	+10%	+30%
Business failures (Dun and Bradstreet, number)	154	139	156	155	217

## PRICES

Spot commodities, daily index (Moody's Dec. 31, 1931 = 100)	410.2	416.0	427.2	457.6	311.9
Industrial raw materials, daily index (U. S. BLS, Aug., 1939 = 100)	262.3	265.1	269.2	315.3	198.8
Domestic farm products, daily index (U. S. BLS, Aug., 1939 = 100)	335.3	340.1	344.7	356.5	274.7
Finished steel composite (Iron Age, lb.)	4.376¢	4.376¢	4.376¢	4.131¢	2.686¢
Scrap steel composite (Iron Age, ton)	\$42.00	\$42.00	\$42.00	\$42.00	\$20.27
Copper (electrolytic, Connecticut Valley, lb.)	24.500¢	24.500¢	24.500¢	24.500¢	14.04¢
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.)	\$2.43	\$2.38	\$2.42	\$2.48	\$1.97
Cotton, daily price (middling, ten designated markets, lb.)	35.32¢	36.36¢	38.36¢	37.77¢	30.56¢
Wool tops (Boston, lb.)	\$2.00	\$2.00	\$2.00	\$2.45	\$1.51

## FINANCE

90 stocks, price index (Standard & Poor's)	191.0	190.7	195.7	180.7	135.7
Medium grade corporate bond yield (Baa issues, Moody's)	3.55%	3.54%	3.53%	3.54%	3.05%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate)	24-24½	24-24½	24-24½	24½	24-1%

## BANKING (Millions of dollars)

Demand deposits adjusted, reporting member banks	53,216	52,651	52,274	52,251	44,521
Total loans and investments, reporting member banks	76,937	77,629	75,532	72,606	71,147
Commercial and agricultural loans, reporting member banks	22,153	22,054	21,606	20,472	19,221
U. S. gov't and guaranteed obligations held, reporting member banks	32,431	32,848	31,685	31,940	49,200
Total federal reserve credit outstanding	25,867	25,325	24,857	24,841	23,883

## MONTHLY FIGURES OF THE WEEK

	Latest Month	Preceding Month	Year Ago	1946 Average
Cost of living (U. S. BLS, 1935-39 = 100) old basis	191.4	192.3	186.5	139.3
Retail sales (seasonally adjusted, in millions)	\$13,975	\$13,391	\$12,992	\$8,541

\* Preliminary, week ended Oct. 25.

†† Estimate (BW—Jul. 12 '47, p. 16).

† Revised

‡ Date for "Latest Week" on each series on request.

# in BUSINESS this WEEK...

## GENERAL BUSINESS:

**MAKING 1953 LOOK GOOD**—Businessmen plan to spend almost as much on plant and equipment in '53 as this record year.....p. 27

**TURNING POINT ON SPENDING**—Peace prospects play a big role in shaping 1953 investment programs .....p. 28

**NOT AS BAD AS THEY MIGHT HAVE BEEN**—Business scents improved profits despite third-quarter drop in earnings .....p. 29

**ELECTION NIGHT: TEST FOR POLLS AND ROBOT BRAINS** .....p. 30

**BACKWASH** of the steel strike worries civilian producers who are eating into inventories and allotments .....p. 32

**TWO STEPS TOWARD POLIO PREVENTION**—Vaccine and a blood fraction offer hope as preventatives .....p. 33

**SIGNPOSTS**—Mergers last week pointed to two significant trends: the construction boom and high taxes .....p. 33

**UPDATED INDEX**—FRB revamps its index of industrial production .....p. 34

**Business Briefs** .....p. 36

## BUSINESS ABROAD:

**WHY FRANCE BALKS AT EUROPEAN UNITY.** Remembering World War II, the French are leery of anything that smacks of a German military buildup .....p. 136

**Business Abroad Briefs** .....p. 138

**MAKING THE JAGUAR BRITAIN'S HOTTEST EXPORT.** Sporty British car has 5,000 orders (at \$4,000 each) for delivery to the United States next year .....p. 140

	Page
Business Outlook .....	17
Washington Outlook .....	39
International Outlook .....	133
Personal Business .....	155
The Trend .....	172
Figures of the Week .....	23
Local Business .....	126
Readers Report .....	8

**HOW FEINBERG BROUGHT FREEWAX TO THE BIG CITY.** Florida businessman's new floor wax took some hard selling.....p. 62

**Marketing Briefs** .....p. 76

## THE MARKETS:

**COMMODITIES WOBBLE AGAIN.** After pulling out of the post-Korea slump, U. S. markets have started slipping again .....p. 112

## CANADA:

**DOMINION DOLLAR: IS IT TOO STRONG?** Premium over American money handicaps U.S. exporters, delights Canadian tourists in United States .....p. 90

**CANADA FINDS MORE GAS, MAY PIPE IT TO NORTHWEST**.....p. 94

**TV TOO HIGHBROW.** That's what Canadians think of their new home-grown programs. But advertisers are moving in.....p. 98

**Canada Briefs** .....p. 98

**DRIVE TO UNIONIZE A WHOLE TOWN BOGS DOWN, LEAVES SCARS.** Violence flared when Central City (Ky.) merchants resisted union organization by UMW's District 50 .....p. 146

**SHORING UP THE FLOOR UNDER WAGES.** C-of-L index drop finds unions trying to make sure they won't be caught. Example: New-style contract at Douglas.....p. 148

**Cost-of-Living Table** .....p. 150

## MANAGEMENT:

**WHAT THE RUSSIANS KNOW ABOUT PLANNING.** U. S. businessmen may learn some useful tricks from Soviet five-year plans.....p. 116

**MANAGEMENT PATTERN: EVALUATING INDUSTRIAL PSYCHOLOGY.** It has already proved useful, but a lot of research is needed.....p. 120

**GROUP MEDICINE.** Big companies back plan to offer annual care, hospitalization, for under \$100.....p. 122

**Management Briefs** .....p. 124

## FINANCE:

**BULLS, BEARS BOTH CLAIM MARKET'S GOING THEIR WAY.** Each side argues hard, but neither is betting much money.....p. 100

**BANKS ARE MAKING MONEY.** Their stocks look increasingly inviting to some investors, in relation to industrial companies.....p. 106

**Finance Briefs** .....p. 110

## LABOR:

**MINERS DIG DEMOCRATS OUT OF A HOLE.** They return to pits, as Lewis accepts White House promise to reconsider WSB's decision.....p. 144

## MARKETING:

**CRACKING DOWN ON SHOPLIFTERS.** Stores run a campaign to control rise in pilfering.....p. 58

## PRODUCTION:

**MAKING NEW PRODUCTS OUT OF OLD.** E. F. Houghton & Co. keeps pace with machining, textile developments by finding new jobs for outdated products. (cover.).....p. 43

**LEARNING TO WORK TITANIUM.** Production of the metal is flowing, but development of working techniques is a bottleneck.....p. 48

**COMPLETE HOME FOR FOUR ... ROLLS UP TO THE GAS PUMP.** Vita Homecruiser is house that sits on a Ford chassis .....p. 50

**Production Briefs** .....p. 51

## NEW PRODUCTS:

**New Products Briefs** .....p. 56

## REGIONAL INCOME:

**INCOME INDEXES SURGE UPWARD.** August income ran 3.6% ahead of '51.....p. 158

## TRANSPORTATION:

**THE MAN WHO KEEPS THE SPECIAL ROLLING.** It takes an expert to bring candidates to the whistle stops on time .....p. 78



**Captain James A. Common** of the tug **CHALLENGER** reports flawless performance . . . "With a quartering sea we held a course within  $1\frac{1}{2}$  degrees, and steering engine applications ran from 3 to 4 per min. to as little as one in 15 mins. without any rudder application."



**Captain Fred Dixon** of the tug **CUYAMACA** writes, "What I like about the Sperry Magnetic Compass Pilot is that you can depend on it in any weather or sea." Electro Mechanical Steering Equipment is also included in both of these tugboat installations.

## HOW SPERRY HELPS TUGBOATS SAVE HOURS AND MILES . . . AUTOMATICALLY

When you're just a little off course, a lot of time and many miles can be wasted in the long and frequent tows between Los Angeles and San Diego. But two sea-going tugs of the Star & Crescent Boat Company are now *saving* hours and miles as they help bring in the greatest share of the gasoline and diesel oil supply for San Diego county. Today they keep huge fuel barges on straight courses . . . *automatically* . . . with the Sperry Magnetic Compass Pilot.

**Time and Fuel . . . These add up to big savings!** The economy of Sperry automatic steering has demonstrated itself conclusively in tug operations. Time and fuel are saved every mile of the tow, by keeping those miles to a *minimum*. The remote controller permits steering outside the wheelhouse and the skipper has more time to supervise other operations.

Every Magnetic Compass Pilot is backed by Sperry's extensive and dependable service.



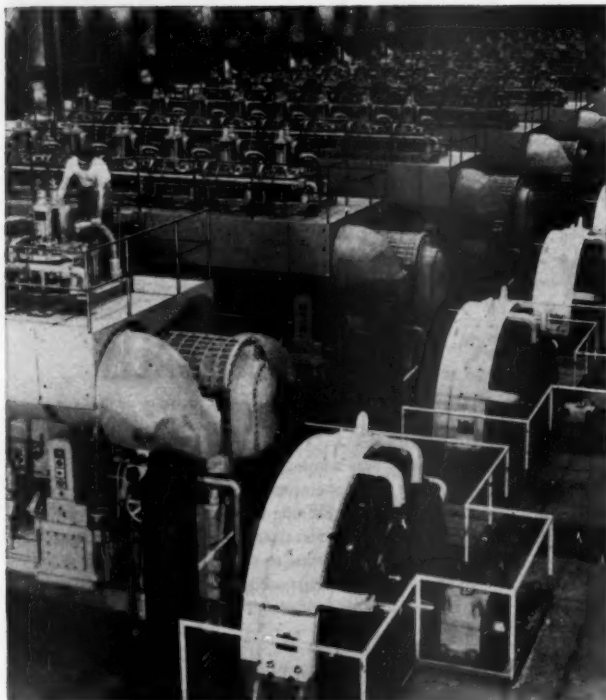
SPERRY GYROSCOPE COMPANY DIVISION OF THE SPERRY CORPORATION, GREAT NECK, N. Y. • LOS ANGELES • SAN FRANCISCO • SEATTLE  
CLEVELAND • NEW ORLEANS • BROOKLYN • IN CANADA • SPERRY GYROSCOPE COMPANY OF CANADA LIMITED, MONTREAL, QUEBEC



# REYNOLDS Metals Company

Gas Diesels are

100% Texaco-Lubricated



Engines in Reynolds Metals Company Jones Mills Arkansas Aluminum Reduction Plant — one of the world's largest internal combustion plants — include 18 Nordberg Gas Diesels, 9 of which are shown in the illustration.

For more than nine years Texaco Ursa Oils have given the 18 Gas Diesels in this mammoth installation trouble-free, economical operation. These 18 giant Gas Diesel engines have delivered full power, with minimum maintenance expense — thanks to Texaco Ursa Oils. These fine lubricants...

- resist oxidation
- combat carbon and sludge formation
- keep ports open and rings free
- assure better compression and combustion

**THE TOUGH JOBS GO TO TEXACO.** And here are more outstanding examples where Texaco is preferred.

**MORE** { buses  
revenue airline miles  
stationary Diesel horsepower  
railroad locomotives

in the United States are lubricated with Texaco than with any other brand.

**ONE PURCHASE AGREEMENT PLAN** brings you skilled engineering service plus high quality Texaco lubricants that can help you lift unit output and lower unit costs. For details call the nearest Texaco Distributing Plant or write The Texas Company, 135 East 42nd Street, New York 17, N. Y.

**THE TOUGH JOBS GO TO TEXACO**

**TEXACO**  
**INDUSTRIAL LUBRICANTS**

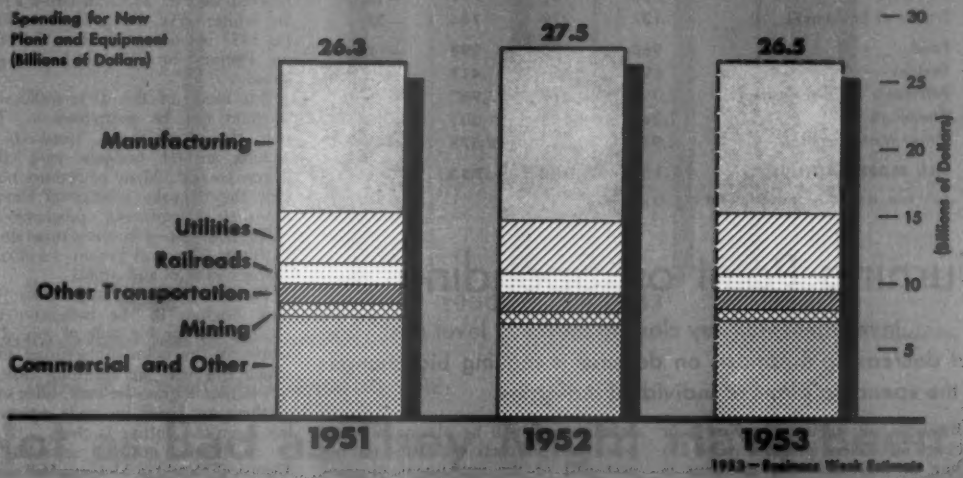


*Faithfully yours*  
1903

*for Fifty Years*  
1952

## Industry is Planning Another Year of Huge Capital Spending

Spending for New  
Plant and Equipment  
(Billions of Dollars)



## Making 1953 Look Good

Businessmen—in making their own plans—aren't waiting for the outcome of next Tuesday's election:

- **Over-all** (chart, above), they're planning to spend almost as much for new plants and equipment in 1953 as the record amount they're spending this year. And they think they'll have the profits (page 29) to finance them.

- While manufacturing industries expect to spend less, utilities and other nonmanufacturing lines are boosting their plans for investment next year.

- **Unexpected**—This will surprise many executives and economists who've been figuring that industry's spending for new facilities would slide off markedly as the defense program reached its peak. But this outlook is based on a preliminary survey of industry's plans made by the McGraw-Hill Dept. of Economics. This survey, the first real measure of spending plans for 1953, will be followed early next year by the department's comprehensive annual review.

These findings are enough to sharply strengthen the business outlook for 1953. They suggest:

- One of the main props under the boom is still sturdy. Industry investment in new facilities will run on at about this year's all-time high record through the first half of 1953. Spending may taper in the second half of 1953, but with so many long-term investment programs under way—new steel plants, gas pipelines, and others—it's hard to see how investment spending could collapse later in the year.

- Businessmen themselves expect good business no matter who is elected—or they'd be thinking more about cutting back investment programs. As it is, not one company surveyed by McGraw-Hill mentioned the election as a major factor it considered in planning for 1953.

- **Subject to Change**—There'll be time for second-guessing later, of course. McGraw-Hill made its survey earlier than usual, caught many executives who were just firming up their programs and had not yet cleared them through budget committees or boards of directors. And, as the surveys found in 1949, plans can be changed rapidly. But the trend is clear. Business is not

thinking of cutting back rapidly. It is going ahead with high-level spending.

This time, moreover, executives don't expect the shortages that plagued many companies in 1952, slowing down programs for adding to capacity.

- **Bread-and-Butter**—Barring big strikes—the steel strike notably slowed down pipelines this year—new plants should come in, and new equipment should be delivered, about on schedule. One reason: 1953 plans in physical terms—bricks and mortar, equipment and controls—will be little, if any, bigger than the 1951 program. Meanwhile, the capital goods industries have been boosting their own capacity. So, for the first time since Korea, executives are making out capital goods budgets without worrying too much about shortages.

The sheer volume of these investment plans will stimulate general business in 1953. But this program is also bread-and-butter for thousands of companies, particularly those in the capital goods industries. For more detail on industry-by-industry plans, see next page.

## What Manufacturers Plan for 1953

	Millions of Dollars			% CHANGE 1952-1953
	ACTUAL 1951	ESTIMATED 1952	PLANNED 1953	
Steel	1,304	1,718	1,428	-17
Machinery	675	773	661	-14
Electrical Machinery	359	407	468	+15
Autos	736	909	791	-13
Transport Equipment	182	229	144	-37
Food	968	933	998	+7
Textiles	695	491	417	-15
Petroleum & Coal Products	2,014	2,812	2,967	+5
Chemicals	1,283	1,503	1,301	-13
Other Manufacturing	2,914	3,033	2,578	-15
<b>ALL MANUFACTURING</b>	<b>11,130</b>	<b>12,608</b>	<b>11,753</b>	<b>-8</b>

Source: Dept. of Commerce; BUSINESS WEEK 1952-53 estimated.

## Turning Point on Spending

Investment will stay close to the 1952 level next year, but decreasing emphasis on defense is making big changes in the spending plans of individual industries.

Business will sail into the New Year with its investment program (page 27) rolling in high gear—but the year is nevertheless a turning point.

The manufacturing industries now plan to spend only 8% less in 1953 than in 1952 and more than in 1951. But, as the table above shows, there are marked changes in the program.

Defense-supporting industries are over the hump in adding new capacity. Biggest declines in 1953 plans are in transport equipment and steel—where many defense projects are being but-toned up. Machinery makers and the auto industry are also slowing down investment. But makers of electrical machinery, who are starting a long-term expansion for peacetime products (BW—Jun.14'52,p178) are reported planning to raise their investment next year by 15%.

Soft goods industries show great diversity. Oil companies and the food-processing industries are raising their sights. But chemicals, often spoken of as the perpetual growth industry, are cutting back by 13%. That's partly a reflection of softness in textiles. The chemical companies specializing in rayon have cut back very sharply. For their part, textile manufacturers began cutting their capital programs in 1952, will cut again next year.

• **On Peace Terms**—So 1953, for many, if not most companies, is a real turning point. It's the year when the drive to build new plants and equipment for

defense work will be playing out—and peacetime prospects will shape the biggest part of the investment program.

That's reflected in two ways in the figures collected by McGraw-Hill's Dept. of Economics: There is (1) a broad diversity in company plans within an industry and (2) a falling off in plans of smaller companies.

• **Pace-Setters**—Plans vary a lot within industries. In machinery, for example, the industry as a whole is planning to spend less for new facilities in 1953. But makers of office machinery are raising their spending plans. Similarly, the food group is planning to spend more over-all, but canning companies are cutting back on their programs.

There's a marked division, too, between big companies and small. McGraw-Hill's sample is made up chiefly of the larger companies. They've been pace-setters for all industry in past years. And generally they are keeping their investment programs going at a high level. That's sustaining total spending in one industry after another. But the survey indicates that smaller companies are cutting back fairly sharply.

Financial reasons may be calling the tune here. The squeeze on profits (page 29) has hurt smaller companies. Many of them, too, won't have the money piling up in depreciation accounts that the bigger companies do. With rapid amortization of new defense facilities, many major companies

will have money pouring in that can be reinvested.

• **Nothing Final**—McGraw-Hill's figures are not precision-tooled, since they're based largely on companies' preliminary plans for next year. But they clearly block out the pattern in manufacturing. They show, too, that:

Most big companies are working on long-range programs. Companies are working to the long-term programs (many of them five years or more) blocked out in McGraw-Hill's survey last winter (BW—Feb.2'52,p76). Plans for 1953 are being raised as they firm up. Planning for 1954 and beyond goes ahead.

But much of this 1954-and-beyond program can be postponed—if. This year, the survey shows, treasurers are making capital budgets with their fingers crossed. Many companies noted that they'll make substantial changes in their investment programs—and make them fast—if business turns down. So future plans will be very sensitive to changes in sales and profits.

• **Time for Change**—Prospects for 1953 look brighter in the industries that account for the big bulk of capital investment—the nonmanufacturing lines, which this year are spending close to \$15-billion. Figures are hazy, since some of them are based on trade estimates, but again the outline is clear:

• **Electric utilities**, according to Electrical World, a McGraw-Hill magazine, will boost their spending from \$2.6-billion this year to \$3-billion next. Gas utilities, slowed this year by shortages, particularly of steel pipe, are also expected to boost their spending next year.

• **Commercial companies**—building stores, office buildings, warehouses—are expected to boost their spending at least 5%. They've been held down this year by credit restrictions, steel shortages.

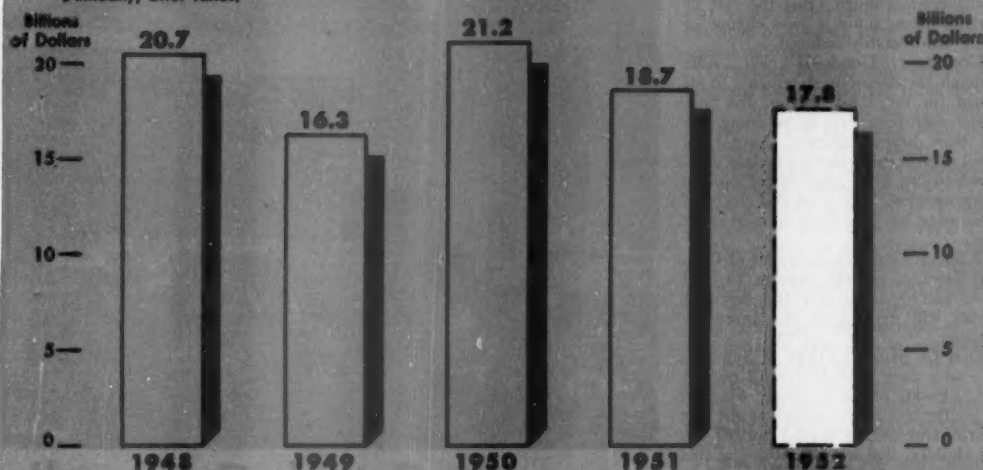
• **Railroads**, on the early figures, are expected to cut their investment about 15%. But the rails are very sensitive to business volume. If their revenues stay high, they may spend more, since there's plenty of work to be done in modernizing terminals and other facilities.

• **Mining companies** are counted on to spend at least as much next year as this—some of the biggest projects of the metal mining companies are just getting under way.

Here, as with the manufacturing companies, there's still time for changes. And McGraw-Hill's detailed survey, due early in the new year, will undoubtedly show some revisions in programs. But by all the indications, business will carry its investment program into the new year at a level very close to the 1952 high—and that's a bullish sign for all business.

## Corporate Earnings: Off, But...

(Annually, after taxes)



Source: Council of Economic Advisors, Inc.; 1952 AUGUST WEEK RELEASE

ALL THINGS CONSIDERED, PROFITS ARE:

## Not as Bad as They Might Have Been

Corporate earnings in 1952 will be no great shakes, by postwar standards. Even with a good fourth quarter, net profits will lag behind 1951—by perhaps 5%. They will be about 20% behind booming 1950.

In comparison with what business expected three months ago, that's a fairly cheerful forecast. Though the year as a whole will be lower than industry has become accustomed to, a cautious air of optimism is beginning to show. Most companies feel that the second and third quarters were the low points of the year. From now on things will perk up a bit.

Even at the worst, it wasn't anything like as bad as a lot of businessmen had expected it to be when the big steel strike started. Profits suffered, to be sure, but not enough to make any serious difference in industry's financial position. Most firms are in excellent condition. Working capital is at an all-time high. Dividend rates have been maintained at peak levels.

• **No Curtailment**—Almost any corporation that has expansion plans (page 27) can still carry them through. Profits are still big enough to provide a sizable part of the money for new capital spending. All that businessmen need is a continued volume of sales big enough to make them feel comfortable about the ambitious programs already in the works or on the boards. In fact, the

higher volume and earnings indicated for the near-term future will enable business to let out its belt a few notches.

• **Not Too Bad**—Third-quarter earnings reports now coming out provide the basis for muted optimism—if for no other reason than that things are not as bad as expected.

Almost everyone thought that the steel strike would have a greater impact on earnings in general. It begins to look now as though the chief effects were confined to the steel companies themselves. A few of the heavy metal-using industries—notably autos—dipped as steel shortages kept output down. Almost everyone else was able to stretch out supplies that had been squirreled away for just such an emergency.

By the time all the third-quarter earnings statements are in, profits should just about measure up to the previous quarter's mark instead of falling well below it.

The final quarter is likely to be the strong point of the year. Corporate statements reflect a distinct shift in sentiment. A majority of officers commenting on prospects agree that things are picking up rapidly. Most carry their enthusiasm forward into 1953. Some even predict good business for another year at least.

• **Inventories**—The major reason for the optimistic mood is the shakeout in retail inventories—and the fact that re-

tail sales are heading upwards. The profit picture hangs largely on one thing: how easily manufacturers can dispose of the record quantities of merchandise they are turning out.

Manufacturers are already holding a heavy total of inventory—perhaps too heavy. If the stuff doesn't move off the retailers' shelves in a hurry, most firms will have to cut output rather quickly. It is doubtful whether many businesses would take a chance on building up inventories any more in the face of slow sales.

Higher sales may help rescue industry from the rising costs that have been cutting deeply into profit margins (BW—Oct. 18 '52, p136). Of the companies heard from so far, two boasted of increased sales for every one that showed a rise in earnings. Costs are so high that any drop in volume shows up immediately in the profit column.

• **Dividends**—Stockholders are not suffering from the current low level of earnings. Dividends are at their peaks. Only a few companies—such as Pacific Mills and Talon—have passed dividends. Some—such as Rheem—have cut their dividends. But most companies have kept paying out at the old rate. Dividends for the quarter should match up pretty well with the second-quarter's total—which was at an annual rate of \$9.6-billion.

But some dividend cuts are in the



cards for this year unless business is really booming in the last quarter. Most companies will meet their regular payments easily enough. But the raft of yearend extras stand a good chance of being considerably reduced.

• **Consumer Goods**—If you riffle through the corporate statements so far issued for the third quarter, the consumer industries seem to be doing better than heavy industry. Almost all retail organizations show a pickup compared to last year. Appliances show a sharp upswing. Television and electrical equipment has gone up at an even faster clip.

Ralph J. Cordiner, president of General Electric, expects business to hold up in the fourth quarter—but says that profits will depend on the inventory position.

Don G. Mitchell, chief of Sylvania, says sales were 43% over third quarter 1951. Profits of the company were up 47%. He sees a new record in the last quarter and says, "I think I can tell our stockholders that we see nothing at this moment to prevent Sylvania from enjoying another sound gain in sales in 1953."

Aircraft and air transport have improved their third-quarter performances nicely over a year ago. Republic Aviation has doubled its net earnings. Boeing has more than doubled. Order backlogs for the aircraft industry are now much fatter than they were a year ago this time.

Most of the airlines show an increase in both revenues and net income. Earnings of United Air Lines have gone up 12%. Capital Airlines went up by 30% compared to third quarter 1951. Northwest's net went up only 5% even though revenues jumped by 13%.

Building supply and cement companies mostly show gains. Lone Star Cement's sales rose 11%; net went up 27%. Penn-Dixie's net earnings went up a bit even though sales slipped somewhat.

• **The Losers**—Most auto company reports are not out yet but they are likely to follow the pattern of Studebaker. Studebaker's earnings in the quarter were off 57% from the year before.

Most textile and drug companies are off. Increased competition and lack of demand made it rough for both industries.

The fast moving oil companies finally stubbed their toes. The ones reporting so far are all doing poorly. Phillips shows a dip, Shell and Standard of New Jersey show good sized drops.

It's no surprise that most of the steel companies are turning in poor statements. But the 100%-plus rate of production at which the companies are running is a cinch to shape up into a neat fourth-quarter profit.



## Election Night: Test for

The vote that elects a new President next Tuesday will have spent its whole life in a goldfish bowl. Opinion polls have already traced it from the first partisan gleam in an eye early last fall. They have followed its sometimes wavering course right up to three or four days before election. And on Election Night, electronic brains operated by two radio-TV networks will pick it up as it comes out of the voting machine, weigh it, and analyze it.

So politicians won't be the only ones who cross their fingers Tuesday night. The election is a big test, too, for the opinion polls and for the broadcasters who use computers.

For the pollsters, it's a test of how well they've adapted their methods since 1948, a date they regard as a swear word (BW—Feb.23'52,p22). For the electronic computers, it's a test of whether or not they have any real place in the Election Night hurlyburly at radio-TV studios.

### 1. POLLSTERS

The effect of 1948 is clear in the syndicated columns of Archibald Crossley, Elmo Roper, and Dr. George Gallup. This year they have been heavy on trends, issues, regional analyses—and hedges. You'll look in vain for the type of outright prediction that had Dewey elected before the '48 battle.

Pulse-takers learned a blunt truth four years ago: You can't trust your own arithmetic. At least, not without many grains of salt and a lot of balancing of conflicting probabilities. In

'48 the statistics looked fine; the trouble lay in the figures that went into the tabulations.

• **Search for Honest Man**—Pollsters now recognize three main obstacles to their hunt for truth:

• People lie about how they intend to vote—sometimes because they fear neighborhood opinion, often because they delight in fouling up polls.

• You can't be sure who will vote, whose opinion really counts.

• You can't allocate the "undecided" vote accurately, especially in a campaign like this one, with so much indecision up to the last moment.

Against these identifiable barriers, the three national polls all use trap questions as a doublecheck, as a filter for the germ of truth. For example, they don't stop at finding out how a man says he'll vote: They fire ingenious questions at him to make sure his economic interests lie in the same quarter as his professed allegiance. And they don't just chalk up noncommittal voters as undecided: They go out to probe a voter's likelihood of voting at all, to try to detect which way he inclines.

• **Crossley**—Early in September, Crossley's national poll gave Eisenhower a narrow lead (BW—Sep.13'52,p30). A final nationwide sampling is now being tabulated for weekend release. It shows Eisenhower still slightly ahead in popular vote. But, like the other pollsters, Crossley warns that a small swing in key states could mean an electoral landslide the other way.

A Crossley survey a week ago showed how close things appeared to be in New





## Polls and Robot Brains

York, one of these key states. Eisenhower and Stevenson were precisely tied with 49.3% each. That's after "undecided" votes had been arbitrarily allocated 3-1 for Stevenson in New York City, 2-1 upstate.

On a similar allocation of undecided votes, distinguishing between Chicago and downstate areas, Crossley shows Illinois probably in the Stevenson column.

• **Gallup**—The American Institute of Public Opinion will go into print Monday with results of a last-minute, pinpoint survey. Dr. Gallup's staff is pretty sure that this analysis, based on Friday and Saturday interviews, will show Eisenhower still narrowly ahead in popular vote, yet Stevenson still gaining slowly.

Most Gallup polling is done by quota sampling—taking a sample in which age, economic, racial, and other classes occur in the same proportions as in the total population. The pinpointing method in the last-minute poll is a form of random, "take 'em as they come" sampling. Gallup has picked 100-odd relatively small election districts all over the country and has assigned his workers to interviewing someone in every household.

Pinpointing results checked closely with the vote in the 1950 congressional elections. And they also confirmed the quota sampling of late September.

In early September, the Gallup poll showed Eisenhower slightly ahead, with 6% undecided. Last weekend's report had Ike still ahead, with 13% undecided. After allocating three votes to

Stevenson for every one for Eisenhower, the popular vote looked like 52% for the general.

However, Gallup has also been asking people to say which political party they prefer, and the answers don't agree with the preference for the individual candidate. With a 3-1 allocation of undecided votes in favor of the Democrats, the tabulation gives 51% to the Democrats. A significant number of people say they'll vote for Eisenhower, actually prefer Democratic rule.

• **Roper**—Elmo Roper's survey has avoided tabulating preference for one candidate or one party over another. Instead, it has dug into which issues people think are most important, which groups have the most at stake economically—in short, why people think as they do about the campaign.

This treatment helps to analyze the undecided vote, which all poll-takers thought would cancel out or balance in 1948—but which went four or five to one for Truman at the last minute. Roper says he has perfected his sample but not changed its basis since '48. "Had everything else been right," he says, "we would have had a tiny error on our sampling in 1948—but everything else wasn't right."

Roper's conclusion in his semifinal column this week is this: Stevenson gaining ground during October but racing against time.

## II. ELECTRONIC BRAINS

Radio and TV officials shudder at memories of four years ago, when some

of their leading political analysts were still predicting a Dewey victory while the teletypes chattered of an increasing Truman lead. No man, they decided, can figure trends and possibilities in his head or separate facts from preconceived notions.

Columbia Broadcasting System and National Broadcasting Co. think they've licked the errors of the last presidential election. They are giving their commentators an electronic assist.

• **Robot Brains**—CBS has arranged to use Remington Rand's giant UNIVAC computer. The machine, in Philadelphia, will be tied with the New York studios by teletype and telephone. NBC has the typewriter-sized Monrobot, made by Monroe Calculating Machine Co., in its New York studios.

In both cases, the machines will digest figures as they pour in, magnifying and underscoring trends for the guidance of the commentators.

The two networks have different ideas about how the voting trends will show themselves.

• **CBS Approach**—CBS will measure the returns against those of 1944 and 1948, assuming that precincts will be reported in about the same order as in those years. Remington Rand technicians, who will operate UNIVAC for CBS, have been busy for more than a week in preparing the machine for its one-night stand. They have fed the 1944 and 1948 data on magnetic tape through the robot brain, whose "memory" has stored them for future use.

As the votes roll in, they'll be teletyped to UNIVAC's stable in Philadelphia. Technicians will feed them through the machine for instantaneous comparison with the past two presidential elections. It works like this:

In the 1944 and 1948 elections, the first 25% of the precincts reporting in a certain state accounted for 30% of the total Democratic vote and 20% of the total Republican vote. In making predictions for this state, UNIVAC will assume that this pattern will be repeated. It will also hedge its predictions by stating the mathematical odds for continuation of a trend.

CBS will pay special attention to what it considers to be the eight key states: Massachusetts, New York, Pennsylvania, Ohio, Illinois, Minnesota, Texas, and California.

• **NBC Approach**—NBC is dubious that precincts will report that close to the same order as they did in 1944 and 1948. Its experts think there have been too many adoptions of voting machines instead of paper ballots, too many extensions of voting hours, to keep the pattern intact. NBC has results of past elections on hand, but it is relying mostly on mathematical calculations of probability.

For example, with 50% of the ex-

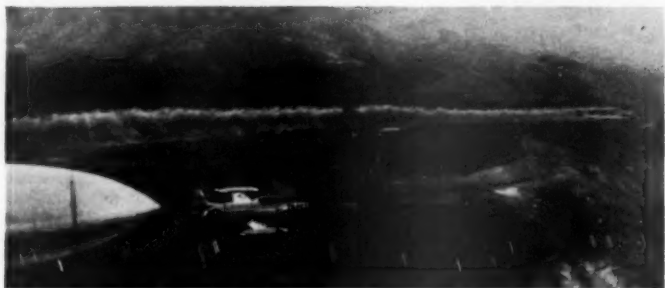
pected vote reported in a certain state, the Monrobot will figure the probability that the leading candidate will retain his edge. As the probability of each candidate's victory passes a predetermined figure (NBC won't say what it is), the state will be deemed safe for that candidate.

NBC will keep a close eye on key

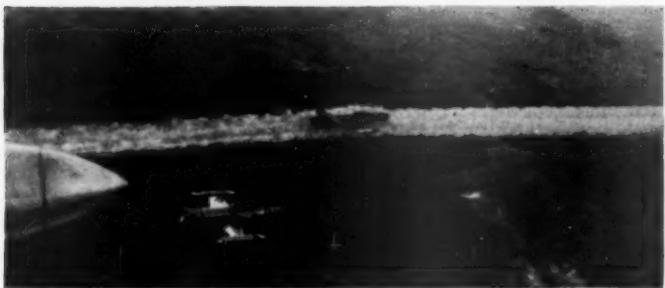
counties that have swam with the current in past elections and will follow these more closely in the tallies. The Monrobot will also be used to run through any comparisons the commentators may want in a hurry. A staff of mathematicians is lined up to set up the computations for the machine to solve.



## Starfire Looses Its Volley . . .



## . . . of 24 Rockets at Target . . .



## . . . Pinpointed by Electronics

The Lockheed F-96C Starfire lets go a volley of 24 rockets from its nose. Each of the 2.75-in. rockets is powerful enough to destroy the largest bombers now existing. The Starfire packs 1,200-odd lb. of electronic equipment which

guides the plane to its prey at 600 mph., takes aim, and fires. The plane carries a pilot and radar operator. Ground radar "talks" the Starfire to a point where it can launch its deadly automatic attack.

## Backwash . . .

. . . of the steel strike is worrying civilian producers who are eating into both inventories and allotments.

The backwash of the summer's steel strike—which cost the equivalent of 13.5-million tons of steel products—is threatening to catch up with some important nondefense manufacturers. While the demand for household appliances, autos, and other steel-using consumer goods has been going up, the makers of these products have begun to worry about the prospect of running short of steel. Their fears were heightened last week when the National Production Authority formally announced first-quarter 1953 steel allotments for civilian users: 60% of third-quarter 1952.

• **Ticketless**—Most civilian manufacturers had big enough steel inventories to pull them through the strike. Afterwards, they had enough Controlled Materials Plan allotment tickets saved up to carry them through the immediate post-strike period of tight civilian allowances. Now, many of them are watching both inventories and allotment backlogs dwindle. They're telling NPA that if it doesn't come through with additional allotments for December and January steel delivery, they'll have to cut back production before the year is out.

NPA has replied that it can't definitely promise a thing. It doesn't know for sure how much open space there is on steel mill order books. Further, there are still a lot of fourth-quarter CMP tickets hanging around unfilled. Companies that hold these tickets have until Nov. 15 to place them with steel mills for January delivery. Until NPA sees how many tickets are handed in, it can't act.

However, steel companies stoutly maintain that there will be large quantities of steel over and above the new ticket requirements for the 1953 first quarter. They also claim that NPA has yet to take into account the increased output of steel from new facilities—which may amount to as much as 1.5-million tons in the first quarter. They still feel that the steel users screaming the loudest today will have little to complain about early next year.

• **Savers**—The situation is hard to analyze clearly because some companies haven't been using their full allotments—either they haven't wanted to, or steel mills haven't been able to fill their orders. Allotment-wise, these outfits will be in good shape during the first

quarter of 1953. In spite of tight first-quarter civilian allotments, they'll be able to breeze through by spending their saved-up fourth-quarter tickets. Out of 22-million tons of expected first-quarter steel production, NPA estimates that 10-million tons will go to fill allotments carried over from 1953.

Companies that chew up their entire 1952 allotments by Jan. 1, though, will be in trouble. Among these unfortunates, NPA thinks, will be (1) companies with "aggressive purchasing departments" that have been able to get delivery on all third and fourth-quarter CMP tickets; (2) outfits that have been buying from mills unaffected by the strike—and thus have been able to fill all their allotments; (3) companies

using relatively plentiful steel mill products such as wire; and (4) users of production items such as castings, turned out by foundries which didn't strike.

• **Second Quarter**—The outlook for steel during April-June, 1953, shapes up this way: Allotments will probably go back up to the third-quarter 1952 level. But NPA thinks some items will still be in tight supply. Among these are cold-drawn and hot-rolled carbon and alloy bars, nickel-bearing stainless, carbon and alloy seamless tubing, and wide-flange structural shapes. The steel industry, though, expects a complete balance of supply and demand in the second quarter next year, with the possible exception of oil country goods.

## Two Steps toward Polio Prevention

**Vaccine and a blood fraction both offer hope as preventives. But neither comes close to solving the problem.**

For all its great strides, medical science has been helpless against the dread paralyzing disease, poliomyelitis. Millions of dollars and millions of man-hours have been poured into research on infantile paralysis. Out of it all has come neither a specific cure nor a practical preventive.

• **First Ray**—But from Cleveland last week the medical profession announced the first really visible ray of hope. At the annual meeting of the American Public Health Assn., two groups of researchers reported that science may have at last put a dent in polio's defensive armor. In both cases the discoveries were preventives, not cures. And both are still in such an embryonic stage that no one would dare hope that the polio problem is even close to being solved.

One of the discoveries is a vaccine which causes persons receiving it to develop immunity agents, known as antibodies, in their blood. The other is a blood fraction, known as gamma globulin, which gives immunity for a period of five weeks only.

• **Vaccine**—Of the two, the vaccine would have the most value, ultimately, since it would protect against the disease for a long period of time. Developed in the Johns Hopkins University polio laboratory, it has had an extremely limited test—on only six Baltimore children. All six children developed immunity agents in their blood streams: The vaccine developed antibodies capable of neutralizing all three strains of the polio virus.

Obviously, such a test is much too small to be conclusive. In fact, it is still so much in the preliminary experimental stage that researchers warn against a vast array of unknowns. They

include such lack of knowledge as the level of antibodies needed for immunity, how long it remains effective, elimination of possible toxic side-effects. Biggest problem of all is an adequate source: So far, the vaccine has been made only from dead viruses from monkeys' spinal cords. No one knows whether larger sources can be found.

• **Gamma Globulin**—Meanwhile, another group of researchers has conducted tests on a much larger scale with gamma globulin, commonly known as GG. Some 55,000 children got injections of the stuff, making this the largest human test in medical history. And all tests were made in areas having raging polio epidemics.

Half the children got GG, the other half a gelatin containing no GG. Of the latter group, 64 came down with paralytic polio. But in the former group, only 26 got it—and the most of those had only mild cases. Thus GG prevented 38 children from getting polio.

• **Similar Problems**—But gamma globulin presents problems comparable to those of the vaccine. In the first place, it can't be as effective because it is a "shotgun" operation. It simply puts ready-made antibodies into the blood stream, giving passive immunity which dissipates in a few weeks.

That means that 46-million children and adolescents in the age group most susceptible to polio would have to have at least two shots to insure immunity during the polio season. To get that much GG would require 2-million pints of blood above and beyond present demands. Finally, a lot more work has to be done, a lot more tests made, to discover whether or not gamma globulin would really be as effective as it appears to be so far.

## Signposts

**Mergers last week point to two significant trends: the construction boom and high taxes.**

Two pairs of companies merged last week. The underlying reasons were different. But in each case the move pointed up a significant trend of the times.

On Oct. 23, International Harvester Co., Chicago, bought up the stock of Frank C. Hough Co., of Libertyville, Ill., manufacturer of earth-moving and materials-handling equipment. The reason: Harvester wants to firm up its position in the construction industry. The day before, Federal Motor Truck Co. of Detroit, and Fawick Airflex Co., Inc., Cleveland manufacturer of heavy-duty clutches and brakes, had merged into Federal Fawick Corp. The reason: tax advantages.

• **Harvester Story**—International Harvester has become more and more interested in the construction industry. It figures there'll be a boom in this field through the next decade whether the rest of the economy is running in high gear or not. The company has been making prime movers for the industry—tractors, heavy trucks. But until it merged with Hough last week, it had never made any of the earth-moving equipment.

Hough makes machines for digging, carrying, filling, and dumping earth—just what International Harvester figures it needs. By the terms of the merger, Hough becomes a wholly owned subsidiary.

• **The Federal Story**—The merger of Federal Truck and Fawick Airflex is a clear-cut dovetailing of totally different tax problems.

Federal Truck saw good times in 1946-47, did pretty well in 1948. Thus, its excess profits tax base (figured on the best three years of 1946-49) was high. But after 1948, the truck business went into a slump. In the first half of 1952, the company lost over \$350,000. At the same time, its excess profits tax credit as of Dec. 31, 1951, was over \$1.5-million.

With Fawick, it was the other way around. It spent the tax-base years, 1946 to 1949, trying to develop civilian markets—and thus showed very small profits. Its excess profits tax credit at the end of its last fiscal year was only \$319,000. Meanwhile, the company had begun making a pile of money—\$1.1-million before taxes in 1951.

The newly formed company will get the benefit of Federal's high tax base and of Fawick's high profits—without the disadvantages of either.

## Updated Index

**FRB is revamping its index of industrial production to put it in tune with changing times.**

As almost any after-dinner speaker will tell you, the Federal Reserve Board's Index of U.S. Industrial Production is a handy measure of economic activity. It is simple to understand, because it deals in things you can readily visualize—like tons of coal or yards of cotton. And it is simple to use in comparisons, since it is immune to the distortions of inflation.

Useful as the yardstick is, however, FRB thinks it can make it better. For more than a year now, the board's statisticians have been working on a thorough-going revision of the various indexes measuring mining and the manufacturing industries—the components which make up the general index. Next February the new indexes will be unveiled.

• **Shrinking Figures**—First thing you'll notice is that all the series have shrunk to half their current size. The general index, for example, is now around 225; next year—assuming no change in the thing being measured—it will read about 122.

The index is shrinking because the board is changing the base period (the time at which the index is 100) from the average of 1935-39 to the years 1947-49. Using a more recent base period will give the index figures a more realistic look and will actually make comparisons easier to grasp.

• **Outdated**—But these aren't the main reasons for the time and money FRB is putting into the revisions. The enormous increase in industrial production resulting from wartime and postwar expansion has been neither uniform nor along the lines the old index was designed to measure. The old index was geared to measure a different mix of products than industry is turning out now.

Using figures from the 1947 Census of Manufactures as a benchmark, the board's statisticians have determined that its existing general index was 3% too low in measuring changes since 1939. It's possible—though it can't be shown—that between 1939 and the war years, the errors were even larger.

• **Too Low**—The durable goods index alone was 6% too low, while even larger errors were found for individual industries and industry groups. The primary and fabricated metals index was 13% short, while machinery was down by 4%.

On the other hand, the board's

series for transportation equipment was shown to be 12% too high.

The same random pattern was found in the nondurables fields, though the over-all average agreed with the census benchmark. Food, paper, and printing were 2% to 10% too low; rubber, textiles, and petroleum products were from 5% to 17% too high.

• **Innovations**—Apart from the problem of errors, FRB staffers felt a re-

vision was in order because better statistical methods and later figures are now available.

Some of the other improvements the statisticians are now planning:

- A new classification of industries and industry groups to take account of new products and changes in old ones.

- New weights for these industries in the more general indexes, to reflect changes in relative importance.



## Battening Down for Big Blows Here . . .



## . . . as Philippines Take a Pounding

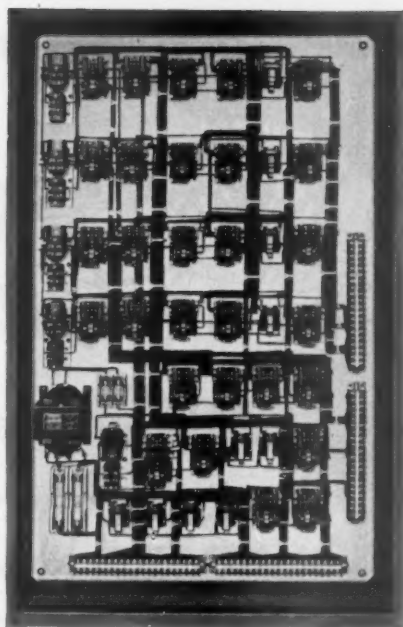
Hurricanes and typhoons are striking hard in many parts of the world this fall. Caribbean storms have threatened repeatedly though none as yet has hit with devastating fury, and all have been preceded by ample notice.

The picture at upper left shows trees on Havana's Prado being tied down to prevent uprooting. When the storm hit, early this week, it did several hundred thousand dollars in damage. As

Cuba felt the storm, Florida hastily got set for its turn. Restaurant employees in Miami (upper right) are shown boarding up windows.

Meanwhile in the Philippines a typhoon smashed at southern Luzon. Photo below shows Mt. Mayon, near Legaspi, one of the hardest hit areas. The storm killed nearly 450 people, with 460 missing and hundreds of thousands homeless.





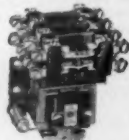
Close-up of control panel showing Allen-Bradley Controls.

## 5000-Ton LAKE ERIE HYDRAULIC PRESS FOR THE AIRCRAFT INDUSTRY Operated by Allen-Bradley Controls

This giant 5000-ton hydraulic press, built by the Lake Erie Engineering Corporation, Buffalo, New York, is a versatile tool in helping to step up production in aircraft plants. The control panel for this machine is equipped with trouble free Allen-Bradley motor controls.

Allen-Bradley motor controls are the overwhelming preference of machine tool manufacturers because they are so trouble free. Allen-Bradley controls are a recognized sales asset to any motor driven machine . . . make them an integral part of your equipment.

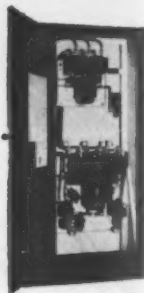
Allen-Bradley Co., 1332 S. Second St., Milwaukee 4, Wisconsin.



Bulletin 700  
Universal Relay.



Bulletin 849  
Pneumatic Timer



Bulletin 740 A-C  
Magnetic Resistance  
Type Starter.  
This starter is  
typical of many  
used by Lake Erie  
for presses rang-  
ing from 50 to  
7000 tons total  
working force.



# ALLEN-BRADLEY

## SOLENOID MOTOR CONTROL

QUALITY





## There's real "pay dirt" today in modernization of paper work

Why should management regard office operations as a fixed cost, as is done in many concerns? We repeatedly find in companies large and small that the office—especially its paper work—is as vulnerable to money-saving improvement as the factory.

It takes approximately \$60,000 in sales, on the average, to pay the annual salary of one clerk. This fact emphasizes the importance of avoiding waste in clerical effort. Unnecessary, out-of-date, or poorly designed forms waste clerical effort and keep costs high. Periodic study of office

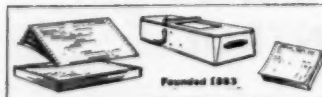
forms often reveals opportunities for effecting substantial economies.

Modernization of paper work usually brings collateral savings, too, in reducing slow-downs in other departments. If you want to hit real "pay dirt" in economies, dig into your paper work.

As a starter, fill out the coupon below, mentioning the kind of forms you would like to improve, nature of business, and office machines used. We will then make up a folder of typical samples from our Forms Library to suggest a solution to your problem.

## Autographic BUSINESS FORMS

AUTOGRAPHIC REGISTER COMPANY  
2216 7th Street, Hoboken, New Jersey



### AUTOGRAPHIC REGISTER COMPANY

Hoboken, New Jersey

We would like to receive a folder of sample continuous forms for.....  
kind of forms

Forms will be used on.....  
type of machine

The nature of our business is.....

NAME.....

POSITION.....

COMPANY.....

STREET.....

CITY..... STATE.....

## BUSINESS BRIEFS

**Slaughtering hogs in Chicago costs too much**, says Swift & Co. The company will move that operation outside the city. It's another symptom of general drifting of packers away from Chicago's Union stock yards (BW—Nov.25'52, p80).

**General Electric won a 10-week-old wage battle with International Union of Electrical Workers (CIO)** and may have put IUE president, James Carey, on the spot. IUE decided to take the wage increase which GE originally offered on Aug. 13.

**Pacific Gas & Electric Co.** may give cloud-seeding (BW—Mar.15'52,p108) a tryout in December to hike water supplies in two Sierra watersheds and boost power production. Pacific, second largest U.S. electric utility, is eyeing success other Northwest utilities have had with rainmaking.

**A 1953 Chrysler will cost about the same as its 1952 counterpart**; there are slight variations on some models. The Chrysler Div. announcement follows the pattern set by Dodge and Kaiser-Frazer (BW—Oct.18'52,p36).

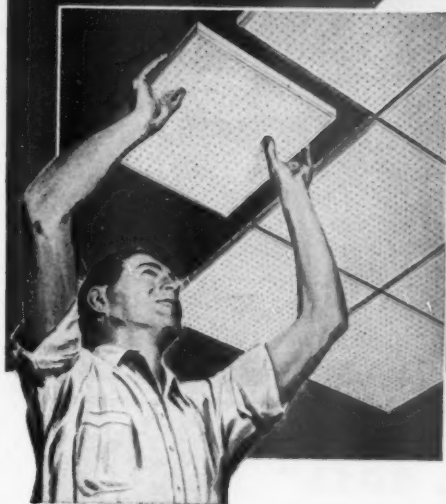
**Federal Trade Commission accuses Shell Oil Co. of forcing independent Shell dealers to handle Shell products exclusively**, in violation of the Clayton antitrust act. Shell denies the charge which is set for hearing Dec. 19.

**R. Stanley Dollar lost his seven-year fight to get back American President Lines, in U. S. hands since 1938** (BW—Jun.21'52,p33). Control of the steamship line went to a syndicate headed by Ralph K. Davies, president of American Independent Oil Co., San Francisco, for \$18,360,000. Dollar had bid \$14-million for the line his father founded nearly 50 years ago.

**Showdown on sales of Puget Sound Power & Light Co. to six public utility districts in Washington State**, challenged by Washington Water Power Co., came at a special meeting of stockholders. A court order barred announcement of results, and restrains management from taking any action. Observers guess that holders approved the action but it is said that a test case will be filed to freeze the sale and force the litigation to the state Supreme Court.

**Allis-Chalmers Mfg. Co. won a \$1, 216,775 contract to supply TVA with a combination turbine-pump unit for its Hiwassee Dam in western North Carolina.**

*This noise cuts down  
office efficiency!*



*Then cut down the  
noise with FIBRETONE®  
Acoustical Ceilings!*



**Johns-Manville Fibretone Acoustical Ceilings effectively reduce noise . . . Easily installed, they provide the quiet comfort so necessary for better, more efficient work.**

● Because distracting noise is so harmful to efficient business operation, practically all new building specifications include acoustical ceilings for sound absorption. However, just because your present building was constructed before sound control became an established science, there is no reason for you to be handicapped by noise. You can have a Johns-Manville Acoustical Ceiling quickly installed over your present ceiling.

Johns-Manville FIBRETONE offers an acoustical ceiling which is highly efficient and modest in cost. It consists of 12" square panels of sound-absorbing materials in which hundreds of small holes have been drilled. These holes act

as "noise-traps" where sound energy is dissipated. Fibretone is predecorated, can be painted and repainted, and is available with a flame-resistant finish.

Other Johns-Manville Acoustical Ceilings include *Perma-coustic*®, a textured, noncombustible tile with great architectural appeal; *Transite*®, panels made of fireproof asbestos; and *Sanaoustic*®, perforated metal panels backed with a noncombustible, sound-absorbing element.

For a complete survey by a J-M acoustical expert, or for a free book entitled "Sound Control," write Johns-Manville, Box 158, Dept. BW, New York 16, N. Y. In Canada, write 199 Bay Street, Toronto 1, Ontario.

\*Reg. U. S. Pat. Off.



**Johns-Manville**

PRODUCTS Movable Walls—Terraflex and Asphalt Tile Floors—Corrugated Transite®—Flexstone® Built-Up Roofs—Etc.



## "I'LL BE O.K., BOSS"

"When they took Jim Davis out on the stretcher, I knew it was bad news. So it almost broke my heart when he gave me a twisted grin and said, 'I'll be O.K., boss.'"

"That's the kind of guy Jim was. He knew how much pride I took in the plant's no-accident record. Even in his agony, he was trying to make me feel better."

"You can't put a new leg back on a man's body — but they did the next best thing for Jim ... called in a big out-of-town surgeon ... gave him the best of hospital care. Then they took him to the Liberty Mutual Rehabilitation Center where specialists fitted him with an artificial leg and gave him thorough training in how to use it."

"News travels fast in a small town like this. The boys in the plant —

even the townspeople — stopped me in the street to talk with me about Jim. When he came back to the plant on the job, you'd have thought I was some new kind of hero. There's no such thing as a good accident — but Liberty Mutual did give a boost to the company's reputation by the way they treated Jim."

Rehabilitation is just one phase of Liberty Mutual's Humanics program, which combines all activities for preventing accidents, and for reducing disability and loss when accidents occur. It also includes a wealth of experience and facilities in Industrial Engineering and Hygiene, Industrial Preventive Medicine, and outstanding Claims Medical Service.

A booklet, "Humanics," explains how the program can help you improve production and reduce loss in many forms, including the cost of Workmen's Compensation Insurance. Get your free copy at any Liberty Mutual Office. Just consult your telephone book for the one nearest you, or write to 175 Berkeley St., Boston 17; Massachusetts.



★ Better Compensation Insurance Protection at Lower Cost through HUMANICS ★



# WASHINGTON OUTLOOK

WASHINGTON  
BUREAU  
NOV. 1, 1952



Look beyond the voting to the differences a change will make.

Headlines from the start have played up the charges, the mud slinging, and the uncertainty over the outcome. This has obscured the stands taken by Eisenhower and Stevenson on issues affecting business. True, promises made to win an election never are carried out in detail. But they do give some clues to policy. So when you know the winner, you can begin anticipating what he means to you and your business.

Start with government spending—a big prop under business. It has been kicked around considerably in the campaign.

Eisenhower talks in terms of substantial savings in both regular and defense spending. It's a view Republicans in Congress support.

Stevenson hasn't gone so far. He deplores waste, too. At the same time, he has found little fault with Truman's spending program.

That makes Eisenhower seem more deflationary. He would be less open-handed on regular domestic spending, on defense, and on foreign aid. But remember, the spending trend is well established; it will take time just to halt it, let alone throw it into reverse.

Then consider the matter of taxes. In figuring the economic impact of a change, spending and taxes go together.

Eisenhower holds out the hope of early cuts. The when or how isn't clear. But the impression is that he would think twice about keeping current rates on excess profits (expiring June 30) and on individuals (expiring next Dec. 31).

Stevenson, again, is the more moderate. He scoffs at Eisenhower's tax talk. To him, current spending is justifiable and so are current tax rates.

Eisenhower has this answer to deflation: Yes, a cut in spending could trip up the boom. But this consequence could be largely offset by lowering taxes. In all, less government spending would tend to be balanced—if not wholly overcome—by the larger amount of money in the hands of the taxpayers.

The two are far apart on labor, which, in politics, boils down to what should be done about the Taft-Hartley law.

Stevenson wants repeal and a new law. On this issue, he lined up with Truman and won the support of the big union leaders.

Eisenhower talks only of T-H revision. He thinks few labor-management disputes would end up in Washington if neither side could expect anything more than impartial treatment from the government.

Farm policy is sort of a toss-up. The present support program is sure to be continued no matter who wins.

Stevenson stands by the 90% support level. He favors extending supports to perishables, fruits, and vegetables. But he's cold to the Brannan Plan (which would let prices shrink to the market level, then provide a subsidy for producers to bring them up to where the government thinks they should be).

Eisenhower buys the 90%, too. But he considers it a sort of minimum. He wants farmers to get full 100% of parity—and get it in the market place. He's for supporting perishables, too. But, like Stevenson, he isn't too explicit about how this would be done.

There's a difference on the fair employment issue. Stevenson backs

# WASHINGTON OUTLOOK (Continued)

WASHINGTON  
BUREAU  
NOV. 1, 1952

Truman in that he has given support to a compulsory federal statute. Eisenhower has deplored discrimination. But he regards it as a problem to be dealt with by local government, rather than the federal government. A compulsory federal statute is not to his liking.

No sharp switch in foreign policy is indicated. Both men want to stop Communist expansion. The differences are over methods.

Eisenhower wants more flexibility—the Dulles foreign policy line. To him, containment shouldn't mean that we merely push the Reds back at any point where they might break through. He wants freedom to counter.

Stevenson supports what we have, pretty much. It's the Acheson policy of hit when we are hit, but don't become aggressive.

The difference isn't great in economic terms. Both men would continue economic aid as a main support of foreign policy. But Eisenhower demands more of an effort from our allies than Stevenson does.

As for Korea, neither side has offered an answer to the question of how to bring the fighting to an end. Both recognize the danger that trying to win a military victory could set off World War III. So the prospect is for a continuation of the efforts to get a compromise settlement. Meanwhile, the Reds will be put under mounting pressure.

There will be a house cleaning in Washington. The big question is how thorough it will be.

Eisenhower would be in a position to wield the broadest broom. When parties change power, a wholesale turnover in political offices is automatic. This is an advantage which would make the task easier for Eisenhower.

Stevenson would be under obligation to Truman, his top campaigner. This would have its complications when the time came to make decisions on pushing out and selecting officials.

Recruiting top personnel won't be easy for the winner. When times are good and people are busy, competent men are hard to get.

Cabinet posts are an exception. These top jobs bring such high prestige that they are much sought after by leading figures in both parties.

The problem is in second and third level jobs where the hours are long, the pay is relatively low, and the glory is limited. Here the advantage would seem to be with Eisenhower. There hasn't been much tapping of Republicans for political service in Washington for the past 20 years. Besides, serving a GOP president wouldn't tend to stigmatize a businessman like serving the Democrats.

Baiting of business won't be so popular. Neither Stevenson nor Eisenhower has adopted the Truman technique of using business as a whipping boy for political purposes. This causes some worry on the union side. In the past, union leaders have figured they could count on Washington as an ally any time there was trouble with employers.

Keep Congress in mind in your figuring. It takes a real political upheaval to overturn o'd lineups in the House and Senate. The informal, but entrenched, coalition of Republicans and Southern Democrats will still have the final say on programs sent up by the White House. And this entente leans to conservatism.





When you plan printing for any purpose, remember this trade-mark. It's ace-high in paper! It represents the diversified and standard Mead brands of printing papers for every business and advertising use.

Your printer or lithographer, serviced by America's leading paper merchants, knows Mead Papers. They work beautifully for him, and he works them beautifully for you. Rely on him to recommend

precisely the brands you need, whatever your purpose, your printing process, or your purse.

Mead Papers include D&C coated papers and Wheelwright bristols and covers. Used and specified in ever-mounting volume wherever printing is bought, used and produced, Mead Papers mean business. Use them and specify them for every job, every time. The sky's the limit for their versatility and dependability.

## THE MEAD CORPORATION "PAPER MAKERS TO AMERICA"

Sales Offices: The Mead Sales Co., 118 W. First St., Dayton 2 • New York • Chicago • Boston • Philadelphia • Atlanta

ESTABLISHED 1846

T.M. Reg. U.S. Pat. Off.



Announcements are news, and news has high reader-impact. Their style, size and format may be anything their users wish, but MEAD PAPERS can always help make them effective.



Envelope enclosures are mighty mites that travel postage-free with letters and invoices. Any business can use them profitably. Several MEAD PAPERS are custom-built for such media.



## Cradled in cactus... *packaging's newest news!*

Yes, now they've even got that Mexican desert weed—cactus—working! And at a delicate, shock-insulating job—protecting some of our nation's most precious cargo!

Made into a wonderful cushioning material, it's cradling shipments of delicate flight instruments, expensive recording and laboratory equipment—many of the most prized packages of such well-known companies as General Electric and Allen

B. Du Mont Laboratories, Inc.

The secret? Naugatuck Lotol.® This latex compound coats and bonds cactus fibers firmly and lastingly together to make a light, airy cushioning pad called Tulatex®. So resilient, it gives real space savings—so light, it means a big cut in shipping weight!

If you're a manufacturer, think of what Lotol can mean to you—specially com-

pounded to answer your specific needs in bonding, coating, dipping, sizing, or saturating.

Whatever your product, there's a good chance you can be helped by Naugatuck Chemical's fine basic materials and long experience in improving old products, helping to create new ones. Why not look into it today by writing to the address below.

*®Made by Queen City Tulatex Corporation, Burlington, Vermont*

# Naugatuck Chemical

Division of United States Rubber Company

511 ELM STREET, NAUGATUCK, CONNECTICUT

Branches: Akron • Boston • Charlotte • Chicago • Los Angeles • Memphis • New York • Philadelphia • In Canada: Naugatuck Chemicals, Elmira, Ont.

MARVINOL® vinyl resins • KRALASTIC® styrene copolymers • VIBRIN® polyester resins

Rubber Chemicals  
Aromatics  
Synthetic Rubber  
Agricultural Chemicals  
Reclaimed Rubber  
Latex

# PRODUCTION



BOARD CHAIRMAN A. E. Carpenter keeps Houghton & Co. in step with changing industrial demands by finding new jobs for ...



PUT ON COSMOLINE

OUTDATED PRODUCTS. Houghton turned its medicinal cure-all Cosmoline into a rust resistant, keeps ahead of its field by ...

## Making New Products Out of Old

E. F. Houghton & Co., of Philadelphia, is a traditional but radical business. Houghton's job is processing petroleum products for metalworking, lubrication, cleaning jobs. Its 900 employees also make chemical compounds for textiles and leather products for hydraulic and other machinery.

• **Old and New Approach**—In some ways, Houghton couldn't be more traditional.

• Even today the company plugs a few products it started out with 87 years ago—items such as bone black for heat-treating metals and leather belts for machinery, that other companies would have dropped long ago.

• Company brass still punches a time clock, more from habit than from duty.

• Houghton breaks nearly every Madison Avenue advertising rule in its direct-mail ad magazine, The Houghton Line. Format, type face, and homespun editorial content haven't changed since 1908.

When it comes to product development and promotion, however, Houghton is anything but a stick in the mud:

• Its comparatively small research staff is continually reaching for new and multipurpose jobs for Houghton products, often comes up with a wholly new item.

• Houghton backs up its products with unusually extensive engineering

service, before as well as after a sale.

• **All-Purpose**—Many of the 900 products in the Houghton catalog were firsts in their field. Many of these firsts are products that compete directly with other Houghton items.

A good example is a new product Houghton pushed last week at the National Metal Exposition in Philadelphia. It's called Antiseep All-Purpose Base and can be used for about 90% of all metal-cutting jobs. Antiseep makes a little oil go a long way; one gallon does a job that may normally call for 25 gallons of conventional oil. In addition, it stretches the service life of a cutting tool by 50%.

Antiseep will probably ring up \$1-million in sales for 1952. It will undoubtedly cut into the sales of Houghton's other straight cutting oils. But this is a problem in product development that Houghton has wrestled with since birth.

• **Flexible**—Edwin F. Houghton went into business in 1865—a few years after Col. Edwin Drake brought in his first oil well at Titusville, Pa. Houghton got a contract for filtering petroleum through charred bone. After each filtering job Houghton had more bone than it knew what to do with. So the company started selling it as a heat-treating material for metals—the product that is still on the company's catalog.

That single stroke of resourcefulness started a chain of product adaptations over the years. That old standby, Cosmoline, for instance, which was originally sold as a cure-all for everything from mumps to dandruff, became a standard rust resistant for ordnance pieces in both world wars. When the big belt-driven machinery started to go out, Houghton shifted the markets for its leather products to hydraulic pistons, which use leather packings.

• **Keeping in Step**—Finding new markets for outdated products, however, is just one phase of Houghton's development work. Many a new product simply grew out of the changing demands of the machining and textile industries. Houghton introduced a series of chemical salts for heat treating, for example, when it discovered that the bone black, because of its powdered form, could never be adapted to mechanized operations.

Houghton figures that, competitively, a new product is good for about two years. By that time, another company is likely to come out with a similar but cheaper product. Houghton once had a corner on a chemical that prepared textiles for Sanforizing, the process used to shrink textiles before tailoring. It had to give way later to a cheaper product of a competitor.

But Houghton long ago discovered there is more than one way to keep



## If Contract Manufacturing is a Specialty ... Who are the Specialists?

Contract manufacturing — the intricate art of doing another man's work as carefully as if it were your own — is a specialty. And Taft-Peirce is the largest contract manufacturer ... the largest specialist in the country. Skilled craftsmen, modern machine tools and a complete plant designed to work for others result in top precision ... low unit cost.

### About Open Capacity ...

Naturally, our 450,000 square feet of manufacturing area and 1,500 machine tools are pretty busy these days. But, occasionally, we have considerable open capacity — especially for small and medium-sized work. A note on your letterhead will bring you our most recent "Open Capacity Bulletin." It might help solve some of your production problems.



THE PRINCIPAL PRODUCT OF TAFT-PEIRCE IS SKILL

For Engineering, Tooling, Contract Manufacturing

**TAKE IT TO TAFT-PEIRCE**

The Taft-Peirce Manufacturing Company, Woonsocket, R.I.

For immediate information and service call the Taft-Peirce representative in your area

5301 Woolworth Bldg., New York, N.Y. • 343 Ridgedale Circle, Greece, N.Y.  
10700 Puritan Ave., Detroit, Michigan • 344 West Randolph St., Chicago, Illinois

**"... Houghton's service covers two fields—technical publications and in-plant engineering ..."**

HOUGHTON starts on p. 43

ahead of the field. Houghton's way is to keep finding new jobs for old products and to combine features so one product can do many jobs, like the all-purpose cutting oil.

• **Solid Backing**—Still another factor Houghton relies on to hold its place in the front line is the unusual engineering service it offers both to confirmed and prospective customers. The company may spend a couple of hundred dollars in engineering services before it ever signs up a customer. Often the cost of this service isn't reflected in the cost of the item; sometimes it is. One company official explains: "We're not a low-priced house; not with the service we offer." It's easy to see why.

Houghton's service covers two fields—technical publications and in-plant engineering. The company has turned out enough books to make it a publishing house in its own right. Some of these stress the practical and have become standard references for engineers in heat treating and metal cutting. But as a rule they are lengthy and detailed engineering reports that are turned out frequently to keep both sales personnel and customers up to date.

• **Service Pays**—These engineering reports are really a byproduct of Houghton's in-plant surveys, which are available to all of the company's 43,000 customers. An in-plant survey means that company salesmen tour a plant, thoroughly inspect each machine, and recommend the Houghton products that will pay off best on each one.

Would-be customers can use the service, too. D. J. Richards, vice-president of sales, says that 85% of the potential customers whose plants are serviced eventually become active customers. About half of those sign up exclusively with Houghton. Occasionally, of course, Houghton's services reap nothing more than a hefty expense account.

• **Scratching the Surface**—Even so, the over-all success of Houghton's service-sales approach is obvious. Since the end of the war, peak annual sales have been around \$14-million, with a low of \$10-million in 1947. The sales department is satisfied with a volume of \$1-million a month.

Houghton is far from satisfied, however, that it has come anywhere near saturating the market for its variety of products. Richards predicts that normal sales will grow to \$20-million in the



Link-Belt Research and Engineering . . . Working for Industry

## Big assignment--helping produce better coal at lower cost per ton



Total responsibility at work. Inland Steel's 750 tph coal preparation plant at Price, Ky., was designed, built and totally equipped by Link-Belt.



**OVERALL ENGINEERING.** Vast experience of nation-wide design and field engineering staff integrates all factors, assures expert planning.



**QUALITY EQUIPMENT.** Link-Belt itself builds a broad line of coal preparation, handling and power transmitting equipment.



**COMPLETE ERECTION.** Experienced erection superintendents, staffs and skilled crews carry through entire job down to last detail.



**SATISFACTORY PERFORMANCE.** When you rely on Link-Belt as a single source, Link-Belt accepts responsibility for overall operation.

### LINK-BELT accepts total responsibility for complete coal preparation plants

FROM mine shaft to railroad car, coal moves through many steps. It is cleaned, dried, sized and blended. It must be carried—sometimes many miles—to rail or dockside . . . then loaded.

It's a complex process—one that varies from seam to seam . . . from one location to another. And Link-Belt is in a unique position to integrate the job all the way—from preliminary planning to final efficient overall operation.

For Link-Belt's broad line of quality equipment and nation-wide engineering organization offer unequalled facilities

ties to coal producers. Whether the plant is large or small, you can place the total responsibility on a single proved source.

Coal is just one of the basic materials in whose processing Link-Belt research and engineering perform important functions. Metals, chemicals, wood, food—almost all the things we eat, wear and use in daily living—are speeded on their way by Link-Belt conveying, processing and power transmission products.

# LINK-BELT

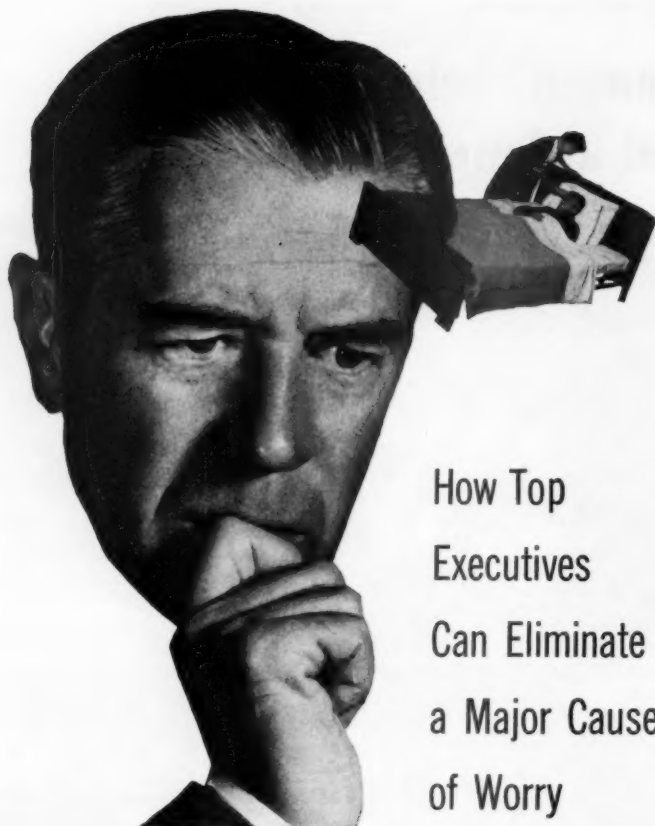
#### LINK-BELT COMPANY

Executive Offices:  
307 N. Michigan Ave., Chicago 1, Ill.  
Plants: Chicago, Indianapolis, Philadelphia, Colmar, Pa., Atlanta, Houston, Minneapolis, San Francisco, Los Angeles, Seattle, Toronto, Springs (South Africa), Sydney (Australia). Sales Offices in Principal Cities.

15,000

ONE SOURCE . . . ONE RESPONSIBILITY FOR MATERIALS HANDLING AND POWER TRANSMISSION MACHINERY





## How Top Executives Can Eliminate a Major Cause of Worry

The thought of long-term disability and heavy hospital and medical fees is frightening. Inflation and taxes have taken away the opportunity most executives once had to build adequate personal security.

With a new insurance idea—Key Man Group Accident and Sickness Insurance—you can give your associates personal protection at reasonable cost to your company. This protection—tailored to your order—gives them peace of mind and ties them more closely to the future of your company.

It gives "the boss" peace of mind, too, by eliminating a haphazard approach to the human problem of what to do when an associate is seriously injured or taken ill. Key Man insurance budgets for unpleasant contingencies.

Get the facts about this sound business plan to provide security for the key men of your organization. See an Agent of the company that is pioneering these new protections for business—Indemnity Insurance Company of North America—or consult your broker.

PROTECT WHAT YOU HAVE®



INDEMNITY INSURANCE COMPANY OF

**NORTH AMERICA**

1600 Arch Street, Philadelphia 1, Pa.

next five years, not counting possible sudden development of other sure-fire products such as Antisept.

• **Homespun**—In its advertising, Houghton is conventional in just one respect: It carries the usual schedule of ads in trade journals. The bulk of the remaining ad burden is borne by The Houghton Line, a folksy, editorial magazine which Houghton says can be described as in a class by itself—a class which Madison Avenue would likely call strictly corn. The Line carries a few unattractive plugs for Houghton products but consists mainly of personal, opinion-loaded articles and heart-to-heart talks by Aaron E. Carpenter, chairman of the board, and son of C. E. Carpenter, co-founder.

Carpenter disclaims his fitness for the literary field, insists on the title of near-Editor. Then he goes on to write about anything that strikes his fancy—from deep-sea fishing to his choice for President.

Carpenter's main job, though, is riding herd on the finances and operations of the company when he isn't turning out copy for the Line. He stepped into the presidency in 1935, six years after the death of his father, the son of the co-founder. He became chairman of the board in 1950, passing the president's job on to W. F. MacDonald, the former treasurer.

D. C. Miner, advertising manager and member of Houghton's board, says the Line is costly, almost as expensive as a year's schedule in the trade journals. However, the tremendous response the Line gets from over 200,000 customers and field personnel proves that it is one piece of direct-mail advertising that does not get thrown in the waste basket.



## New Way to Lay Pipe

These pipe launchers, equipped with heavy-duty truck tires, helped Collins Construction Co. lay a natural gas pipeline from Staten Island to Brooklyn, N. Y. The tires absorb the shocks of laying the pipe, which would otherwise crack its casing.

*beauty sells  
the toughest batteries, too!*

**PROBLEM:** Make it good-  
looking but tough

**RESULT:** THE KATHANODE

*battery case molded by*

**GENERAL AMERICAN**



*World's largest group of  
injection presses for big moldings*



Those in the auto battery business will tell you, "The public buys the best looking battery on the shelf!"

General American in co-operation with Gould-National Battery Company solved the problem. The Kathanode Poly-Red has the toughest container ever built. It resists chipping and cracking, sub-zero weather and extreme heat. It's completely unaffected by battery acids.

This container is molded on General American's big, high-speed injection equipment where the first successful one-piece jet battery is also produced.

Again... America's leading manufacturers use the creative engineering and technical facilities of General American's Plastics Division. Find out how General American can be part of your production line.



*Write for descriptive brochure*

**PLASTICS DIVISION**

**GENERAL AMERICAN TRANSPORTATION CORPORATION**

135 S. La Salle Street, Chicago 90, Illinois • 10 E. 49th Street, New York 17 • 2842 W. Grand Boulevard, Detroit 2



For some people, payday can come too often—last too long.

Take your payroll clerk, for example.

For her—every payday may mean days of tedious preparation—hours of posting, checking, re-checking and reconciling.

Actually, 60% of most payroll preparation work is unnecessary.

With the new Todd Form-Master, any clerk can prepare the required three sets of records at one time. The operator always writes on a fixed line, in a comfortable position. Her work is easy, fast, visible, notably free of errors. Carbons are clear, sharp—in perfect alignment.

Get all the facts about the Todd Payroll Plan that saves employee time and cuts company overhead.

**Todd**  
**COMPANY, INC.**

ROCHESTER NEW YORK  
SALES OFFICES IN PRINCIPAL CITIES

DISTRIBUTORS THROUGHOUT THE WORLD  
THE TODD COMPANY, Inc., Dept. BW,  
Rochester 3, N. Y.

Please tell me more about the Todd time-saving, money-saving Payroll Systems.

Firm \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

By \_\_\_\_\_ BW-11-1-52

## Learning to Work Titanium

● With production flowing nicely, techniques for handling the "wonder metal" have now become the main bottleneck.

● The Army is trying to end the individualistic secrecy that has prevented exchange of information among researchers.

● As a result, it's now known that pure titanium can be handled fairly easily. And progress is being made on coping with the more difficult alloys.

Titanium—the new "wonder metal"—is still giving engineers a lot of gray hairs. But the nature of the problem is changing. Production is coming along nicely—prodded and assisted by various government agencies (BW—Oct. 11 '52, p. 34). The big bottleneck now is working the metal.

Titanium doesn't behave like the older metals when you try to work it. New techniques must be developed to handle it. That's the problem the engineers are concentrating on now.

• **Secrecy**—Several companies have been spending sizable chunks of money on research since they got their first look at titanium three or four years ago. But mostly, they hung onto the few tricks they learned as jealously guarded secrets. There was little swapping of information about promising ways to handle the new metal.

To get knowledge circulating, the Army's Watertown Arsenal finally promoted a meeting of top titanium experts, in conjunction with 13 New England trade and industrial organizations. Many of the leaders in the field decided to talk.

The meeting drew nearly 1,000, with several hundred turned away for lack of space. Most of the people represented small metal working companies.

• **Conclusions**—Out of the talks emerged one reassuring conclusion: Pure commercial titanium can be handled by just about anybody equipped to work steel alloys as hard as stainless.

Titanium alloys are something else again. The techniques needed to work these hard alloys are hardly ever found elsewhere in the metal working field. New lubricants and cooling agents are needed. Frequently, new speeds for grinding and machining must be developed.

The Watertown conferees noted a conspicuous silence about casting titanium. That's because the metal has an insatiable hunger for almost all impurities. It will sop up contaminants whenever it is molten, or even merely

hot. In the molten state it picks up impurities from the crucible. And it is rapidly contaminated by the air unless treated in an inert gas atmosphere, or in a high vacuum.

Other methods are more promising, however. Companies have met considerable success in developing ways for handling titanium without using much heat.

(1) **Drawing**. This process of pushing sheet titanium through a die showed two initial facts—one good and one bad. On the plus side, the metal had good physical properties for drawing, and formed easily under die pressure to the desired shapes. But in the process the side walls of the part were scratched and the die roughened.

The scratches would not be important on products that do not require polished surfaces. However, presence of the scratches indicated that particles of titanium had been welded to the sides of the die. These protrusions on the die would rip the next work piece just as a file would do.

Experiments showed that scratching could be retarded by phosphate coating, brass or copper surface plating, and anodizing—an electrolytic process which leaves a protective coating.

Operations involving more than one drawing produced a new problem. Titanium hardens so fast that stresses developed in the metal between drawings. These stresses had to be relieved by introduction of intermediate operations.

(2) **Welding**. The first efforts to weld titanium met with the same frustrations that still face the casters. When hot, titanium combines with oxygen, hydrogen, and nitrogen in the air. In the process it becomes hard and brittle; other physical properties are changed. Inert gas has been used successfully to shield out air during welding. Using a tight metal backing for protection has not worked so satisfactorily as inert gas.

Most experience in handling titanium has shown that the pure metal, or low and medium alloys, work best. This is

also true of welding. The high-strength titanium alloys produce brittle welds. It is generally felt that more research must be done in this field.

(3) **Grinding.** Titanium differed from other metals as sharply in its reaction to grinding as it did in drawing and welding. The grinding wheel showed a tendency to pick up and hold small pieces. Excessive wearing of the wheels was also noted.

Two approaches were made to this problem, and both were successful. Reduced wheel speed worked fine; a change in lubricating fluids did even better. Rust inhibitors and grinding oils were the most successful, according to Gordon T. Rideout, chief field test engineer for Norton Co. One way and another, grinding operations are now showing results 20 times as good as those of two years ago.

(4) **Tapping and machining.** When engineers made the first attempts to tap holes in titanium, they found that cooling and lubricating the cutting teeth, and disposing of the chips, were their main problems.

Lubricating and chip removal were solved by hit-or-miss experiments that finally led to the best lubricant. Cooling was a different matter. The tapping tool expands as it heats up at a faster rate than the titanium itself heats and expands. That means that the tool grows faster than the hole it is cutting. No radical answer has been found for this difficulty.

In the beginning, engineers thought titanium machined like stainless steel. Later experience indicated that it was extremely difficult, if not downright impossible, to machine. Now, the truth seems to lie between the two extremes. Generally, the same difficulties are met as in other working operations. Worst of all, chips tend to weld themselves to the cutting tool, just as they do to the die in drawing. Lighter feeds and special cutting speeds have provided the most successful approach to this.

(5) **Forging.** Wyman-Gordon Co. has found that titanium is a clean material to forge. Unlike carbon and low-alloy steel, it does not form a heavy scale when heated in the forging furnace. That eliminated descaling before the actual forging. Not all was beer and skittles, though. Titanium has a different shrinkage from common alloy steel forgings. Dies designed for steel forgings can't be used effectively on titanium forgings. A given part made of titanium would come out of the die a different size from one made from another metal.

All of the titanium alloys can be spot welded. Results are comparable to spot welded joints in other materials of similar strength. But some physical characteristics may be lower, especially with the high alloys.

# Revolutionary!



## "Automatic" SPRAY Sprinkler

### LIFE - PROPERTY - MONEY SAVER!

Here's the most revolutionary development in the science of fire protection. Now, new buildings or buildings that are not presently fire safe can realize substantially better protection and—at no additional cost. Sprinklered properties can be made **PLUS-SAFE** by merely replacing old style sprinkler heads with the new "Automatic" SPRAY Sprinklers.

An investment in "Automatic" SPRAY Sprinkler protection is an investment in the future security of your own business. Get complete information from your nearest "Automatic" Sprinkler fire safety engineer or clip and mail the coupon for our free illustrative folder.



**"AUTOMATIC" SPRINKLER CORPORATION OF AMERICA**  
YOUNGSTOWN, OHIO  
OFFICES IN PRINCIPAL CITIES OF NORTH AND SOUTH AMERICA

## "Automatic" Sprinkler

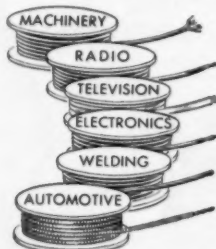
### FIRST IN FIRE PROTECTION

"AUTOMATIC" SPRINKLER  
CORP. OF AMERICA  
P. O. BOX 360  
YOUNGSTOWN 2, OHIO

NAME \_\_\_\_\_  
COMPANY \_\_\_\_\_ TITLE \_\_\_\_\_  
CITY \_\_\_\_\_ ZONE \_\_\_\_\_ STATE \_\_\_\_\_

# FOR PROMPT SERVICE

on your wire and cable needs



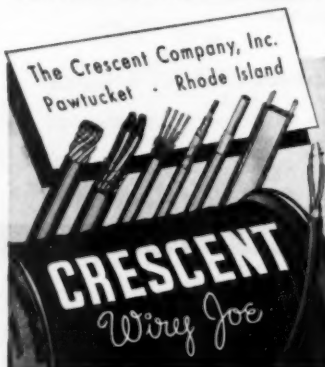
## Call on CRESCENT

Your wire and cable requirements are assured of prompt delivery when they are produced by Crescent's complete manufacturing plant.

Our facilities cover all phases of wire making. We draw our own wire, and formulate our own insulation from natural rubber, synthetic rubber and plastics. And at every step from raw materials to final assembly, constant laboratory control guarantees highest quality and performance of Crescent products.

This close integration cuts out intermediate profits and assures efficient service on your orders.

For industrial and electronic applications consult the Carol Cable Division.



## Complete Home for Four . . .



## . . . Rolls Up to the Gas Pump

The new Vita Home-Cruiser is a compact "house" mounted on a heavy-duty Ford F-5 truck chassis. You sit in the living room to drive. Your windshield doubles as a picture window when you set up housekeeping by the side of the road, and can be covered by a screen for privacy.

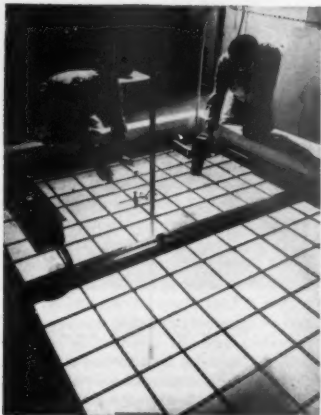
The cruiser sleeps four people and is independent of outside utilities and trailer camps. The table and seat to the right of the driver convert into one double bed. The living room divan, which seats four people, can also be

transformed into a double bed. The home is electrically lighted throughout, has an 80-gal. water tank, built-in shower, 4-burner gas stove, and a septic tank. Ceiling height is 6 ft. 3 in. The house can do 45 mph. while the family is doing the chores. Price is \$7,500.

The model shown above is now in production at Vita Automatic Windows, Inc., 65-30 Queens Blvd., Woodside, N. Y. Custom models, with air conditioning and de luxe accessories, are also available.



## PRODUCTION BRIEFS



Atomic radiation changes the physical properties of many materials. At Knolls Atomic Power Laboratory, operated by General Electric Co. for the Atomic Energy Commission, radioactive cobalt 60 is being used to determine the effect of radiation on various materials that will be used in construction of a model atomic power plant for a submarine. The cobalt is kept 9 ft. below the surface in a tank of water. Samples are lowered by one scientist while another checks the radiation at the surface.

Wheat-straw pulp has been found suitable for fine papers and newsprint in a cooperative research project run by the Dept. of Agriculture's Forest Products Lab. Preliminary study was so successful that a West Coast paper maker is installing a small paper making machine in a new pilot plant where he expects to experiment further with the straw pulp.

Indian bead-makers may soon be switching to vital defense jobs in the government's Turtle Mt. ordnance plant at Rolla, N. D., for which ground was broken this week. The new plant will turn out tiny jewel bearings for delicate instruments. The Chippewas around Rolla, who have strung beads for generations, have shown that they have the patience and manual dexterity it takes to grind, polish, and bore holes in the tiny jewels.

Transistors, tiny electronic amplifiers that do the work of a vacuum tube, will go to work for the first time this week in the nation's telephone network. Bell Telephone Laboratories will use them in a trial installation in dial-switching equipment in Englewood, N. J.

# Are you UP on today's developments in new "working" plastics?



●Extraordinary new developments are expanding the industrial importance of phenolic plastics these days. Materials possessed of "working" properties in combinations unheard of 5 years ago...even a few months ago...are furnishing new answers in product improvement and development programs.

Suppose you are looking for impact strength up to 20 ft. lbs. per inch (Izod), yet readily moldable into finished shapes with high surface luster? We've developed this at Durez by using glass fibre as a filler. How about an opposite class of material...a flexible type, rubber-filled, for service where shock is severe? Or one that eliminates corrosion of silver contacts in electrical devices? Or a conductive material you can mold, then plate with copper, nickel, or other metals?

Inherent in such Durez developments as these are potential savings in production time and cost worthy of

investigation now. New utility for your product, new beauty and sales appeal too may well come out of a conference with your custom molder of Durez phenolics. Our field technicians are always at your service.

## DUREZ

PHENOLIC RESINS

MOLDING COMPOUNDS

INDUSTRIAL RESINS

PROTECTIVE COATING RESINS

Our monthly "Durez Plastics News" will keep you informed on industry's uses of Durez. Write, on office letterhead.

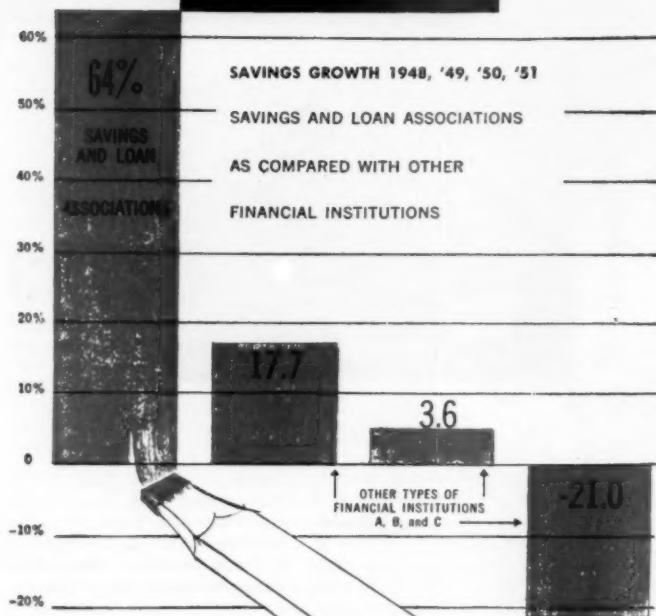
DUREZ PLASTICS & CHEMICALS, INC.

4011 Welch Road, North Tonawanda, N. Y.

**PHENOLIC PLASTICS THAT FIT THE JOB**

(Advertisement)

**a record  
in the  
making**



**Fastest growing**

**Savings Institutions**

**in America are:**

**Savings & Loan  
ASSOCIATIONS  
CO-OPERATIVE BANKS**

**SAVINGS AND LOAN  
ASSOCIATION**



**Safeguarding 20 Billion Dollars**

25 Savings and Loans pass \$75,000,000 mark. As 1952 began, a survey disclosed there are 4 Savings Associations in the United States with resources totaling more than \$100,000,000. Closing in rapidly are 21 additional Savings and Loan Associations\* whose resources moved past the \$75,000,000 point. This nation-wide business currently safeguards more than \$20,000,000,000 for some 14 million thrifty persons. Annually more than \$435,000,000 in earnings is paid savers for the use of their accumulating funds.

**Differ from other type financial institutions.** With the primary functions of Savings and Loan Associations limited to the encouragement of saving money for all purposes and the sponsoring of home ownership, these institutions are not engaged in the commercial type of banking. Through the offering of substantial earnings, savers are encouraged to save and have . . . helped to enjoy a secure life. In providing a practical method of paying for a home on monthly terms, a plan inaugurated by Savings and Loan back in 1831, they have made America a great nation of home owning families . . . and less susceptible to the undermining influences of "isms."

**Businessmen Unaware**—Not dealing in commercial financing, many men of business have little contact with this specialized group of Savings Associations unless brought to their attention by housing problems of the community, or efforts to solve financial or home financing problems for their employees.

**Look into your City's Associations**—Although you as a leading citizen in your community may have little need for the savings facilities or home financing assistance provided by Savings and Loan Associations, you and your business benefit greatly by the existence of strong and active Savings and Loan Associations. They build financial stability into the family units of your community, provide better housing for more people than any other system devised, and keep money circulating within the community which helps all business.

It's good business to back things that help American business!

• • •

This advertisement is sponsored by the United States Savings and Loan League in behalf of the 3850 member institutions who exhibit our emblem.

\*The same general type of institution is also familiarly and legally known as: co-operative bank, building and loan association, home-stead association, savings association, building association.

## NEW PRODUCTS



### Cheaper Microfilming

For years, industry has known the savings that can be made in space and storage costs by putting records on microfilm. Over 7,000 letters can be put on one roll of film. The catch has been that the camera and reading equipment needed to put records on film and to use the films have been large, complicated, and prohibitively expensive for many smaller companies.

At the National Business Show in New York last week, Diebold, Inc., unveiled a portable, motorized microfilm camera that is simple to operate and costs only a fraction of the master camera units now on the market. The new camera, Flofilm, is about the size and weight of a portable typewriter.

Key feature of the Flofilm (flow principle) camera is the magazine loading. The film is put in as a unit so there is no trouble in threading or handling. A magazine containing 54 ft. of film costs \$2.50. Diebold provides 24 hr. service for processing.

The camera will photograph practically anything up to 11 in. wide, any length, and  $\frac{1}{4}$  in. thick. An operator can film 2,500 letters in an hour.

• Source: Diebold, Inc., Canton 2, Ohio.

• Price: Camera, \$750; portable reader, \$250; delivery 4-6 weeks.

### Push-Button Desk

One of the high spots of last week's National Business Show in New York was a \$7,000 desk built by Brenner Desk Co. It had just about every push-button gimmick you'd expect to find in a desk—and some that you wouldn't.

Brenner's desk comes in golden oak. It has dozens of panels that can be opened by pressing an ingeniously distributed set of push buttons. The top of the desk is free for paper work.

Lighting is provided by a battery of built-in fluorescent tubes. Behind one panel there's a mirror and an electric razor for quick shaves. Another compartment contains a hermetic humidor



## He listens by looking...

And why not? It takes the guesswork out of test work.

**Q**UIET BALL BEARINGS are longer running, smoother running, stand up better under heavy loads. That's why Federal inspectors rely on their eyes rather than their ears when testing the sound of a bearing. They use an Anderometer, a highly sensitive machine which picks up a bearing's slightest whisper and translates it into electrical impulses. By glancing at the dial indications, the inspector can easily tell if the bearing is up to Federal standards. This "listening by looking" is but one of the many tests that guarantee top-notch performance from every Federal Ball Bearing.

THE FEDERAL BEARINGS CO., INC., POUGHKEEPSIE, N. Y.



**Federal** BALL BEARINGS  
One of America's Leading Ball Bearing Manufacturers

# MECHANIZE 4 Scrubbing Operations into 1

with a **COMBINATION SCRUBBER-VAC!**



Applies cleanser,  
scrubs, rinses,  
and picks up — in  
ONE operation!

Here's a timely answer to the need for conserving manpower and reducing labor costs — a *single cleaning unit that completely mechanizes scrubbing*. A *Combination Scrubber-Vac* applies the cleanser, scrubs, rinses, and picks up — *all in one operation!* Maintenance men like the convenience of working with this single unit... also the features that make the machine simple to operate. It's *self-propelled*, and has a *positive clutch*. There are no switches to set for *fast or slow* — slight pressure of the hand on clutch lever adjusts speed to desired rate. Powerful (quiet) vac.

*Model 213P Scrubber-Vac* at left, for heavy duty scrubbing of large-area floors, has a 26-inch brush spread, and cleans up to 8,750 sq. ft. per hour! *Finnell* makes *Scrubber-Vac Machines* for small, vast, and intermediate operations, and in *self-powered* as well as *electric models*. It's also good to know that you can lease

or purchase a *Scrubber-Vac*, and that *there's a Finnell man nearby* to help train your maintenance operators in the proper use of the machine and to make periodic check-ups. For demonstration, consultation, or literature, phone or write nearest *Finnell Branch* or *Finnell System, Inc.*, 3811A East St., Elkhart, Ind. Branch Offices in all principal cities of the United States and Canada.

*Conserve Manpower with  
Completely Mechanized Scrubbing*

**FINNELL SYSTEM, INC.**

*Originators of  
Power Scrubbing and Polishing Machines*



BRANCHES  
IN ALL  
PRINCIPAL  
CITIES

and lighter for cigars. Other panels conceal a telephone, radio, intercom outlet, icetrays, disc recorder, liquor cabinet, and cast-steel safe.

• Source: Brenner Desk Co., 326-336 Plane St., Newark, N. J.



## Magnetic Card Trick

The tedious job of fingering through a drawer of file cards to locate a reference can be simplified by letting magnetism do the work. A display of such a system—called *Magne-Dex*—got a lot of attention at the National Business Show this week.

Here's how the system works: Permanently magnetized cards are placed in a file drawer, which is also magnetized. When you open up some space in the drawer, magnetism spreads the cards apart so that you can read 15 at one time. Cards come in standard sizes, files hold up to 1,000 cards.

• Source: *Magne-Dex Sales*, 220 E. 42nd St., New York 17, N. Y.

• Price: Unit with 5,000 cards, \$490.

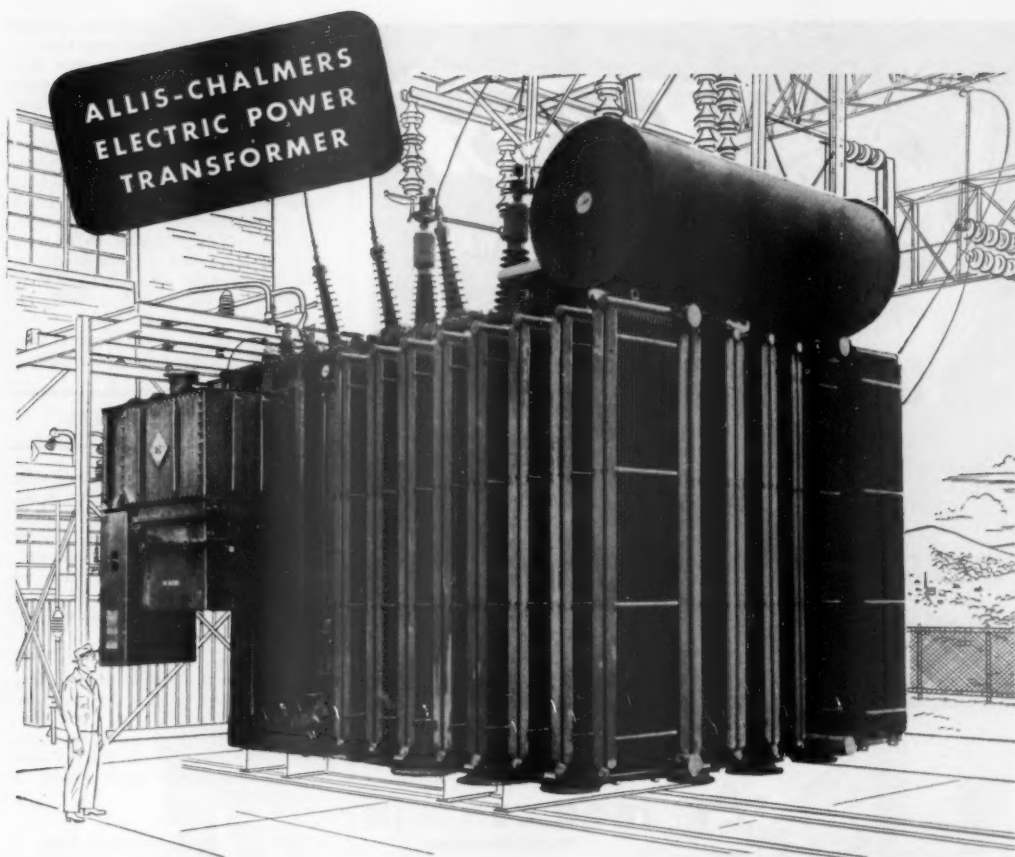
## Lubricants for Alloys

Machining the new alloys for jet aircraft parts is one of the most exacting jobs in industry. These alloys must be able to withstand high temperatures without distortion or fatigue. Tolerances and finishes must be microscopically perfect or the engine will disintegrate at high speeds.

To maintain production at these precision standards, many manufacturers have been using toxic chemical compounds as lubricants for cutting.

This week, Van Straaten Chemical Co., announced that chemical action rather than lubrication is the answer to safer and better cutting compounds.

In five years, Van Straaten has tested more than 2,500 products, finally narrowing the field down to four basic



## PUTS MORE POWER "ON THE LINE"

**Helps Bring Better Electric Service  
to the "Empire" District of the Southwest**

**I**T's big power transformers like this that put abundant electric power at your command wherever you are.

For example: In the four-state area of Arkansas, Kansas, Missouri and Oklahoma, the Empire District Electric Company recently put the unit shown here on the line. It handles 30,000 kilowatts of new capacity added to Empire's Riverton plant . . . steps the current up to the high

voltages necessary for economical transmission over long power lines.

Because it does its job dependably and efficiently, homes, farms and factories over a wide area get the electric power they need, when they need it.

Nation-wide, you'll find Allis-Chalmers electric power machinery helping power companies generate and distribute electricity at lowest possible cost.

*Allis-Chalmers  
Makes Machinery to Help  
People Produce More—  
Have More—  
Enjoy More Leisure Time—  
LIVE BETTER!*

# ALLIS-CHALMERS



GENERAL MACHINERY DIVISION

MILWAUKEE, WIS.—PITTSBURGH, PA.—NORWOOD, OHIO—BOSTON, MASS.—TERRE HAUTE, IND.—MONTREAL, P. Q.—ST. THOMAS, ONT.





# Tissot

automatic

## "ONE WORLD WATCH"

The newest, most revolutionary development in a century of fine watchmaking. Four years in the making... this magnificent, completely automatic watch tells at a glance, without winding, without resetting, without computation, the correct time in any part of the world.

Designed for men who think in terms of continents, TISSOT's automatic "One World Watch" will be a priceless possession for the practical business executive.

**\$350**

14 Kt. Gold F.T.I.  
Stainless Steel \$125. F.T.I.

*Wear it forever  
without winding.*

Tissot Watches are recommended and serviced by fine jewelers the world over

TISSOT, 501 FIFTH AVENUE, NEW YORK, N.Y.

## there's a way around this IRON CURTAIN



Don't put up with business blockades caused by overloaded or obsolete internal communications. AMPLICALL Electronic Intercommunication takes down the "Iron Curtains"—provides 2-second speech contact within and between departments—leaves switchboards clear for important outside calls—keeps personnel on the job—gets business done faster! Today, more than ever, your business needs AMPLICALL—the superior Intercommunication System.

### ELECTRONIC AMPLICALL INTERCOMMUNICATION

SEE YOUR PHONE BOOK  
For your nearest AMPLICALL specialist, look under "Intercommunication" in your classified directory, or write direct.

**AMPLICALL**  
RAULAND-BORG CORPORATION

RAULAND-BORG CORPORATION  
3523-G Addison St., Chicago 18, Illinois

☐ Send complete details on AMPLICALL

Name

Address

City  Zone  State

compounds. These compounds permit doubled speeds for broaching—that is, for enlarging cuts. Van Straaten also claims that five times as many parts can be produced before the broaching tool must be reground.

The new compounds employ a synergistic chemical effect. This principle is that two or more materials working in combination have a greater effect than the materials used separately. The oils in the compounds serve primarily as a carrying agent for at least six different ingredients. They are not used for their lubricating effect.

• Source: Van Straaten Chemical Co., 546 W. Washington Blvd., Chicago.

## NEW PRODUCTS BRIEFS

**Running a home today is actually like running a small business,** says Sears, Roebuck & Co. The company is introducing a new mahogany unit to serve as a combination desk, file, and storage cabinet. The file has 25 indexed folders for convenient filing of home records. A small safe is an optional feature.

**Alcohol-resistant foam,** to put out fires in all flammable liquids, has been introduced by Pyrene Mfg. Co., Newark, N. J. The new foam has been used to put out fires in Ethanol and Acetone, and also in oil in a bank of transformers.

**A golf-cart attachment that holds a score card, pencil, pack of cigarettes, extra golf ball, and six tees,** has been introduced by Kaddy Rak Co., 3214 N. E. Hancock, Portland 12, Ore. It also has a place to rest your cigarette while you take your swing. Price is \$2.95.

**A combination room air conditioner and heating unit is being introduced** by Mitchell Mfg. Co., Chicago, Ill. The heating unit works from the same dial control as the air conditioner. The company doesn't claim this will supplant central heating, but says it will take the chill off rooms in the early morning or on fall days before heating systems are turned on.

**A safety guard made of tough plastics is being produced by Bassons Industries Corp., New York,** to protect the drive belts of machines. The guard can be colored to warn workers of danger. The manufacturer claims it's stronger than cast iron and can absorb vibrations of a machine without rattling.



# World's strongest tape?

It helps huge metal shower cabinets arrive scratch-free and dent-free



PAUL BAILLARGEON,  
WORLD'S  
STRONGEST  
WRESTLER

Phenomenal strength *plus* resiliency makes "Scotch" Brand Filament Tape No. 880 a strapping success on the massive shipping cartons used by Cutler Metal Products Co., Camden, N. J. Gleaming metal shower cabinets are protected from damage in a special carton designed by the staff of Hinde & Dauch Paper Co., Sandusky, Ohio. And they make certain the showers are safe by sealing the heavy cartons with this remarkable pressure-sensitive tape.

What makes "Scotch" Brand Filament Tape so strong? Over 5,000 powerful rayon filaments reinforce every inch of tape width—run *continuously* through the tape like steel cables through a suspension bridge.

What makes "Scotch" Brand Filament Tape

so resilient? These filaments are embedded in an *elastic* adhesive that absorbs jolts and jars again and again without breaking.

Try it yourself and see! See how easily—how *quickly* it applies. See how it actually costs less in the long run! In many colors, widths and lengths. Order a supply today!

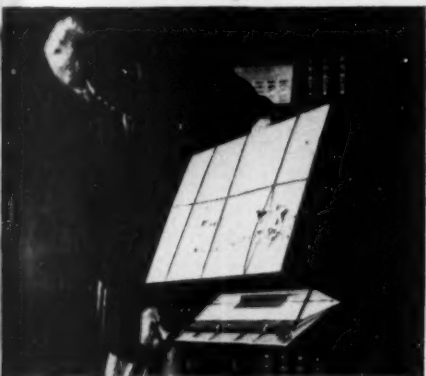
The term "Scotch" and the plaid design are registered trademarks for the more than 200 pressure-sensitive adhesive tapes made in U.S.A. by Minnesota Mining & Mfg. Co., St. Paul 6, Minn.—also makers of "Scotch" Sound Recording Tape, "Underseal" Rubberized Coating, "Scotchlite" Reflective Sheeting, "Safety-Walk" Non-slip Surfacing, "3M" Abrasives, "3M" Adhesives. General Export: 122 E. 42nd St., New York 17, N. Y. In Canada: London, Ont., Can.



## MARKETING



**ROOMY PANTS** are worn by some shoplifters to hide stolen goods. Then there's the...



**TRICK PACKAGE** that looks innocent, but holds plenty of merchandise. To this...



**STORES ANSWER** with concealed spotters, one-way mirrors, better-trained sales staffs. Because the problem has been getting worse, stores more than ever are...

# Cracking Down on Shoplifters

Christmas is a season of good cheer for retailers. But as the holidays draw near, the stores are bracing themselves for a boom they would gladly do without: the inevitable Christmas boom in shoplifting. Crowded stores, big coats, lots of shopping bags make the season a pilferer's paradise.

Stores wouldn't be so concerned if the "booster" limited his activities merely to the Christmas weeks. But in the past few years most, though not all, cities have found shoplifting on the uptrend—and it's by no means a purely yuletide phenomenon. Some stores say it has increased 25% to 30% in the past year. With retail profits down, retailers' concern is growing in proportion.

• **Size of the Take**—Just how much profit disappears into a booster's over-size pants or box (pictures, above) or into a "casual" customer's shopping bag, nobody knows. Most estimates

—which many admit are only wild guesses—are that pilferage accounts for anywhere from  $\frac{1}{4}$  of 1% of total dollar sales to 1% or 1½%. Food merchants put it at the low end of the range. "We'd be out of business if we lost as much as 1%," a Boston supermarket man comments. Department stores and drug stores place it around 1%. Variety stores tend to rate it higher than the other groups. At least one merchant says he loses as much as his total net profits.

• **Causes**—Retailers everywhere put the blame for the increase in shoplifting mainly on three latter-day developments:

- The growth of self-service selling.
- The rising cost of living.
- The peculiar psychological temper of our times.

There's hardly any disagreement that self-service and open displays play into the pilferer's hand. There, as the

whodunit writer puts it, is the opportunity. The motive is more complex.

It's complicated because all kinds of people are in on the act. There are the professional shoplifters, of course, and in some cities these seem to be increasing. There are the drug addicts, who steal to sell, so that they can buy more drugs. There are the kleptomaniacs—though some say they represent less than 1% of all the culprits caught.

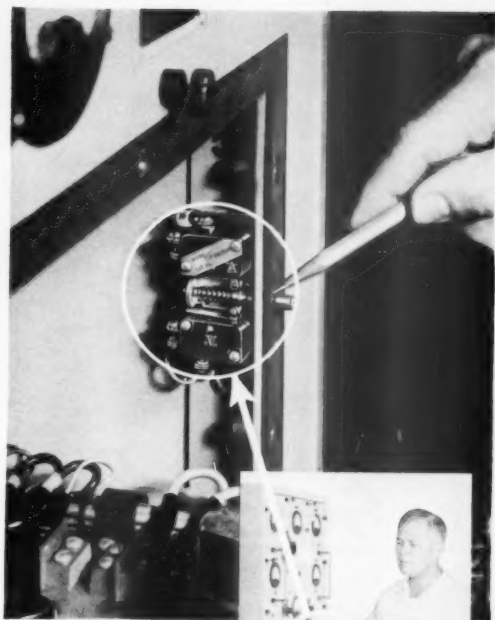
• **Nonprofessionals**—But the great bulk of shoplifters fall within the group of "casual" pilferers. One estimate is that 70% of the people caught in the act are first-time offenders. Mostly these are either women—who do most of the shopping anyway—or juveniles.

Naturally, the economic factor looms large in both groups. An Indianapolis retailer figures that the woman whose purse is slim spends her cash on one item, may be tempted to swipe the other goods. An Albuquerque department



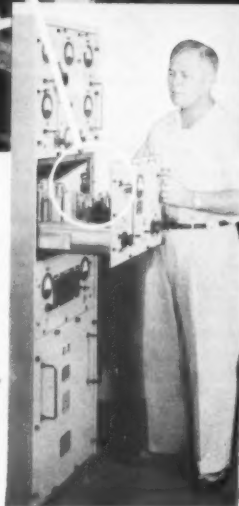
# Do you need a switch to work on a "desert island"?

THAT'S JUST **ONE** OF THE REQUIREMENTS FOR  
SWITCHES IN GATES RADIO'S NAVY BROADCAST TRANSMITTER



One of these two MICRO switch assemblies turns off the current when the cabinet is opened. If current is then turned on manually for checking equipment, the other switch flashes a warning light on the front of cabinet. Reclosing the door automatically resets switches.

Tom G. Banks, Jr., Gates engineer, pulls out drawer of Navy 400-watt transmitter cabinet to show location of two MICRO door interlock switches which protect operating personnel from high voltages.



Radio transmission in the Navy recognizes no climate. Equipment must be ready to "send" instantly after a splash through the surf to a humid, south sea "desert island" or a trek over the ice to an Aleutian hut.

These high voltage transmitters must be safe, too. There must be no danger to personnel from the 2500 volts if the door is opened accidentally.

These were just a few of the exacting requirements which faced engineers of the Gates Radio Company when they designed their AN/URN-5 Radio Beam Transmitter for the U. S. Navy. For a door interlock switch that would always work, under all conditions, they turned to MICRO. This switch, they told us—

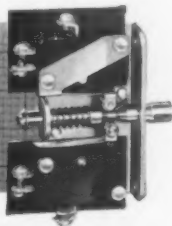
- ① Must be made of materials which would be unaffected by fungus or corrosion.
- ② Must operate perfectly in temperatures ranging from  $-55^{\circ}$  to  $+65^{\circ}$  C.
- ③ Must withstand high humidities up to 95%.
- ④ Must withstand Class B military shock and vibration tests.
- ⑤ Must meet rigid "JAN" specifications.

These requirements were met in every particular by the MICRO double door interlock switch; now three of these units guard each door of this Navy transmitter.

This recognition on the part of Gates engineers of MICRO precision and dependability as components of equipment which must not fail is typical of confidence industrial designers everywhere place in MICRO engineering. MICRO has, or can develop, a switch to meet YOUR most exacting problem. Field engineers are located near you to co-operate in the solution of YOUR switch problem. We invite you to call the nearest MICRO branch.

Let a MICRO  
Engineer show you  
how you can

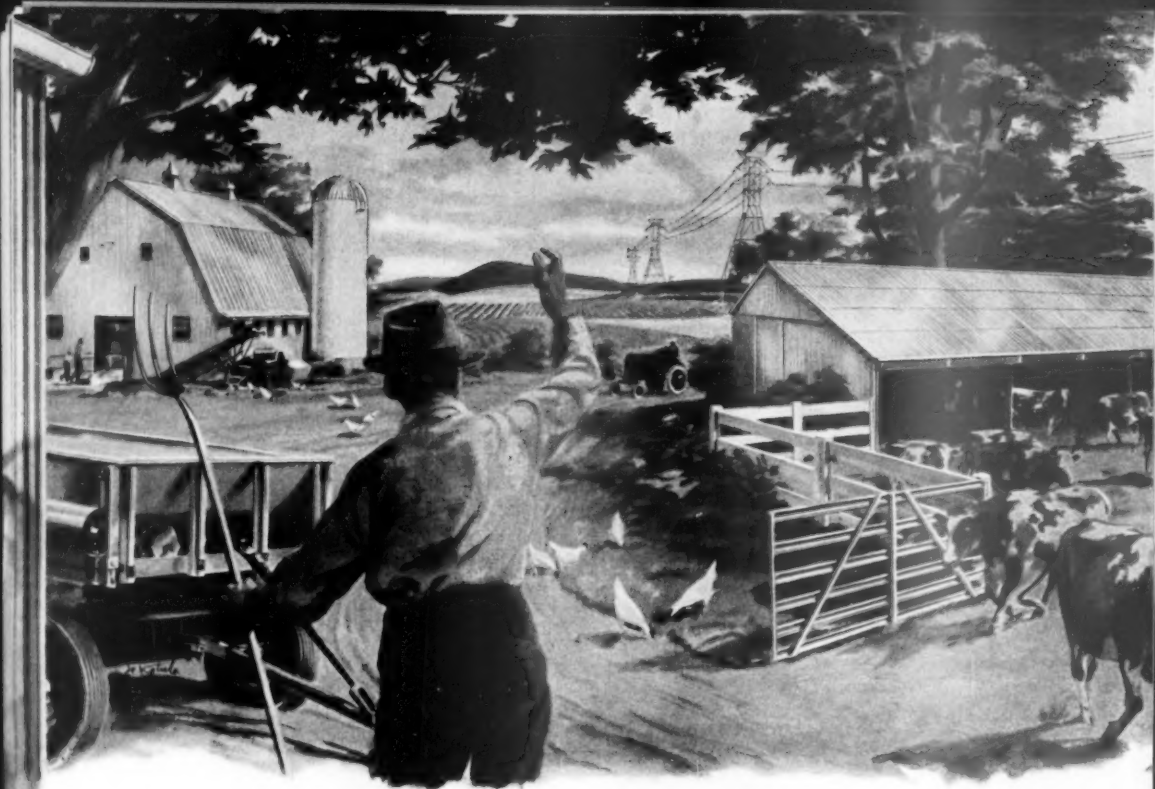
"Use MICRO Precision Switches  
as a principle of good design"



**MICRO**  
MAKERS OF PRECISION SWITCHES  
FREEPORT, ILLINOIS

A DIVISION OF  
MINNEAPOLIS-HONEYWELL REGULATOR COMPANY





## Fighting Inflation at the Grass Roots!

Food prices are basic in any economy. Whatever helps to keep down farm costs helps to defeat inflation.

Aluminum cuts farm costs by these premium advantages: 1. *Freedom from rust*—no painting, practically no maintenance. 2. *Lightness with Strength*—saves labor. 3. *Heat-reflection*—aluminum roofing and siding keeps barns and poultry houses cooler in summer, warmer in winter; increases production. 4. *Lifetime durability*—more years of better service.

What's more, aluminum delivers these premium advantages at *no premium in price*... because aluminum costs no more now than before World

War II. Everybody knows about today's 53¢ dollars... compared to 1936-39.

Well, *your dollars are still worth 100¢ when you buy Reynolds Aluminum*. Just ask yourself what else has come even close to holding this price line!

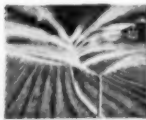
You can profit from this farm lesson, whether as a manufacturer or as a consumer. Insist on aluminum... Reynolds Aluminum.

**Reynolds Metals Company**, General Sales Office, Louisville 1, Kentucky

**YOUR DOLLARS ARE STILL WORTH 100 CENTS IN ALUMINUM!**



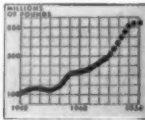
Reynolds Aluminum Frozen Food Wrap... Freeze and cook in it!



More income per acre with aluminum portable irrigation!



The "Alprode" farm gate—light, strong aluminum!



The great expansion decade in Reynolds 55-year history!



# REYNOLDS ALUMINUM

SEE "Doc Carkle," starring Eddie Mayehoff, Sundays, NBC Television Network  
HEAR "Fibber McGee and Molly," Tuesdays, NBC Radio Network.

LET'S  
ALL  
VOTE



store finds most of its shoplifters are women with large families, in the low-income group. Areas where there are large groups of marginal earners—Spanish-Americans, Negroes—find that these people account for much of the pilfering. Rising living costs put extra pressure behind this trend.

A substantial part of today's shoplifting, however, has nothing to do with economics. A lot of boosters come well-heeled—like the Houston man who walked out with five T-bone steaks under his sports coat. "He had four \$100 bills in his wallet," the store detective reported. And a Houston protective agency says, "Ninety-five percent of the shoplifters caught can afford to pay for the goods."

It's economic pressure with a difference. Some people shoplift not just because prices are high but because they are mad at the high prices. More important, they are shoplifting to keep up their own standard of living—and to keep up with the Joneses.

• **Shopping List**—This shows up in what they take. It's true that professionals account for most of the big-ticket items—fur coats, suits of clothes, even refrigerators and baby carriages.

The amateur generally has less ambitious ideas; the goods he takes are seldom worth more than a dollar or so.

But that dollar's worth often represents something important in prestige; it has good, solid snob appeal. A Des Moines retailer says, "I have fewer cases of shoplifting, but the shoplifters have upgraded their take."

An Indianapolis supermarket reports that 90% of the goods taken are fancy foods and nonedibles, with cigarettes scoring high. Small cans of caviar, nut meats, butter, expensive cuts of meat are favorites at food stores. Nylons, cosmetics, perfumes, costume jewelry have special appeal at variety stores and in department stores and specialty shops.

• **Psychologies**—Some observers feel the reason is a general breakdown in morale after the war. Life has suddenly turned humdrum, the pilfering breaks the monotony. Women culprits complain they have marital troubles, need distraction.

In some areas, the explanations take on a political cast. "Those scandals in Washington have a lot to do with it," a Richmond retailer believes. "Everyone has come to expect something for nothing," says a Clevelander.

• **Teen-Agers**—The juveniles—especially the teen-age group—represent the big, new problem, many retailers feel. It's not the small fry so much. The big increase in shoplifting comes from the 11- to 17-year-olds.

A lot of it seems to be a matter of shoplifting for shoplifting's sake. It's smart, and it's fun, they seem to feel.

Often, it's tied in with the narcotics group. A Los Angeles police official says from 20% to 25% of youngsters apprehended were tied up with narcotics.

• **Personnel Problems**—One other factor seems to enter in—and many merchants feel it's an important one. That is inefficient personnel. Fat-paying jobs at defense plants are luring good sales help away from the stores.

The same shortage of good personnel accounts for still another trouble spot: shoplifting by store employees. There's less evidence that this is rising than that over-all shoplifting is rising, but some cities find it growing fast.

• **Remedies**—With this kind of problem on their hands, more communities are taking steps to keep shoplifting under control. This summer, the Houston Retail Merchants Assn. decided it was time to act.

The Houston group is tackling the problem from three angles: (1) by improving methods of detection; (2) by getting tough, bringing more cases to court; (3) by scaring off pilferers.

Cleveland is a city that has had organized protection for years. Here the Protective Division of the Retail Merchants Board keeps records of all charges, sentences, and the like, pools the information for the benefit of member stores. New York City has a similar setup. The Oregon Food Merchants Assn. has also taken concerted action, plans a special drive after election day.

• **Private Systems**—Stores are working at the problem individually, too. A lot of them are doing it with mirrors—trick one-way windows that let watchers see without being seen. Some chains have a sort of standby force that moves in on areas where trouble breaks out. Others are stepping up employee training: Filene's in Boston, for instance, carried a story in its house organ on how to stop shoplifting.

There are any number of other devices. One is to set up goods in symmetrical patterns so that when one is missing it's quickly spotted. Supermarkets keep cigarettes safe at the checkout counter. Some stores hire protective agencies, then post that fact where customers can see. Putting nylons into long tubes helps, too.

• **Taking it Easy**—But it's ticklish business. "We'd rather lose the merchandise than lose good customers," some merchants say. They don't like possible charges of false arrest or an intimidating atmosphere. A San Francisco department store says it lets 80% of the offenders go.

Ticklish or not, some stores seem to be bearing down harder on the culprits. "We made it easy for them with our supermarkets," says one merchant. "Now we've got to make it tough."



*"We've used Stereo-Realist slides in sales promotion for over two years with great success"*

**Says S. W. FRANKLIN,**  
director of merchandising  
Hudson Pulp & Paper Co., New York

THREE DIMENSIONAL STEREO-REALIST slides make it easy for Hudson Pulp and Paper Corp. salesmen to impress customers with the gigantic operation that stands behind Hudson "Multiwall" sacks. They also show the bulky sacks themselves, filled, in their true proportions with the rich, full coloring of the printing.

REALIST slides are ideal for any firm interested in pepping up its sales promotion program. Their true-to-life realism simply can't be beat.

What's more, both buyers and salesmen are enthusiastic about REALIST sales kits. They're light, compact, and really effective. And you'd be amazed at how little it costs to put this outstanding visual sales tool to work for you. It's the ideal personal camera as well.

If you haven't seen REALIST pictures, ask your camera dealer or commercial photographer to show you some. Then you'll know why the REALIST is such a successful sales aid. DAVID WHITE COMPANY, 383 W. Court Street, Milwaukee 12, Wisconsin.

\$159.00 (tax inc.)



\$159.00 (tax inc.)

**STEREO Realist**

THE CAMERA THAT SEES THE SAME AS YOU

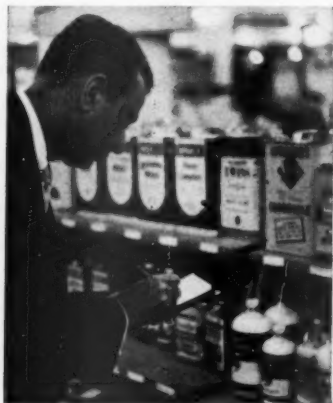
Cameras, Viewers, Projectors and Accessories are products of the David White Company, Milwaukee 12, Wis.



**SEEING RETAILERS** J. M. Feinberg talked to H. W. Broido of Gimbel's about introducing his insect-killing floor wax in New York.



**FIGURING SUPPLIES** Feinberg lined up more materials for the new market with Maury Bloch, vice-president of Warwick Wax.



Checked on competition . . . . .lunched at Toots Shor's . . .

# How Feinberg Brought Freewax to



**PLANNING ADS** T. B. Ryan (center), of Ruthrauff & Ryan, told Feinberg about Freewax singing commercial: "It's murder! It's magic!"



**TALKING EXPORTS** E. P. Hastings of Overseas Service Corp. spotted PX's in other countries where Freewax will be sold.



... talked with magazines . . . . . went home exhausted.

## Big City (Story continues on p. 64)

BUSINESS WEEK • Nov. 1, 1952



## MOSINEE Forest Fibres aid communications!



Forests gave man one of his first means of communication. Drums made from hollowed trees enabled him to "talk" across the miles.

Today, Mosinee forest fibres are important factors in the communications industry, in high fidelity amplifiers, wire and tape recorders, speakers, inter-com systems and other audio equipment . . . as well as radio, television, telegraph and telephone, so vital to our modern way of life.

In various industries, Mosinee research has helped many manufacturers by developing special Mosinee fibres that provide profitable answers to product, processing or packaging problems. *If your problem involves forest fibres in any way, consult Mosinee "Fibrologists".*

**MOSINEE PAPER MILLS CO.**  
MOSINEE, WISCONSIN



**MOSINEE**  
makes fibres work  
for industry

**NOW! MODERN VISTAS  
are created with  
WIRE GLASS**



**Misco Polished Wire Glass  
Combines Beauty and Safety in  
Striking New Pattern**

As advanced in design as the sleek California Zephyr seen through it, Polished Misco Wire Glass by Mississippi<sup>®</sup> is used in Chicago's Union Station to protect its thousands of travelers.

This rugged glass affords security at minimum cost wherever fire or breakage protection is required... enhances any installation with its interesting design.

\*Approved Fire Retardant No. 32  
Specify Polished Misco Wire Glass when building or remodeling. Available through leading distributors of quality glass.

Send today for Catalog No. 52

**MISSISSIPPI**

*Glass COMPANY*

87 ANGELICA ST. • SAINT LOUIS 7, MO.  
NEW YORK • CHICAGO • FULLERTON, CALIF.



**Buschman**

**"Roll-or-Wheel" Conveyors**

For a surprisingly small cost you can mechanize the handling of your product by installing, easy-to-set-up, low-cost, portable BUSCHMAN "Roll-or-Wheel" Conveyors.

Available in 10 ft. and 5 ft. straight sections, curves, adjustable stands, 3-way switches and other accessories. Can be moved and reset in a matter of moments. Write for bulletin #15 today.

THE E. W. BUSCHMAN CO., INC.  
4477 Clifton Ave.  
Cincinnati 32, Ohio



Resting up in his hotel room, Feinberg testifies that . . .

## Freewax Took Some Hard Promoting

J. M. Feinberg, president of the Freewax Corp., came up from Florida a few weeks ago to set the stage for his product's debut in the New York market. Freewax, a liquid self-polishing floor wax and insecticide in one ("the greatest discovery since soap"), is already being sold in the South and Southwest. Now Feinberg is arranging for its introduction to the East.

For the most part, Feinberg, a slender, soft-spoken man just turned 40, spent his brief stay in Manhattan putting finishing touches on his marketing plans (pictures, page 62). He arranged with his suppliers for an adequate amount of wax to handle the new business he expects. He talked to retailers about their plans for launching the new product. He approved the singing commercials ("It's murder! It's magic!") developed by his advertising agency, Ruthrauff & Ryan, for the company's new ad campaign in the South. He talked to an exporter.

• **Different Story**—It was a rigorous few days, but nothing compared to what Feinberg has undergone for five years while trying to get his foot into the door.

Today, people come to Feinberg. They want to buy, act as agent for, lend money to, supply wax for, manufacture, or sell Freewax, in Pennsylvania, South Africa, France, Australia, or practically everywhere in the world that insects bother men.

In the beginning it wasn't like that. Feinberg's is the classic story of what can happen to a man with almost nothing—no money, no experience, no back-

ing, no advice—except an idea for a new product. How do you go about putting a new product on the market under such circumstances?

The first thing you have to do, according to what Feinberg has told BUSINESS WEEK, is to expect to make mistakes. Cheerfully he admits that he did. He considers this inevitable, inasmuch as he started in his new business absolutely cold, and to a degree inadvertently.

• **The Start**—Judging from Feinberg's experience, you ought to have at least two things—a new product that really is new, and persistence. And you also ought to have some luck.

It began back in 1947. Feinberg was quietly running his Tallahassee, Fla., appliance store—Southern Electric Co.—when he got an excited telephone call from his younger brother, Irving.

Irving, a chemist who owned a small plant for manufacturing agricultural insecticides in Sanford, Fla., saw possibilities in a machine developed during the war for laying smoke screens. Irving had seen it used for "fogging" low-lying crops with insecticides. He thought it could also be used to shoo bugs out of houses. His enthusiasm caught on and shortly his older brother J. M. (the initials stand for Jack Mitchell) wound up with a franchise from the maker—Todd Shipyard Corp., New York City—to sell the machines at \$1,650 apiece.

• **Paradox**—Before long the two Feinberg brothers discovered an anomaly: After a debugging job, bugs seemed to return sooner to a fastidiously kept



## top ticket for top management

These days more and more management men are choosing EBASCO to help them solve their special problems . . . problems that range all the way from the initial planning of a business to those which occur during actual operations. In addition, they find that EBASCO is flexible. They can "vote the full EBASCO ticket" (as many companies do) or they can select one or more services their business currently needs.

EBASCO engineers, constructors and business consultants are men with the skills and training not always available in today's tight man-

power market. Their technical abilities are at your company's disposal without adding to your permanent payroll.

EBASCO's background covers half a century of business progress. During this time the organization has helped companies install pension plans, set up inventory and control systems, and improve sales and marketing methods. It has assisted in new financing amounting to more than two billion dollars. In the field of construction, EBASCO has designed and built more than a billion dollars worth of new plants.

*This background—and what it means to your company—is more fully outlined in "The Inside Story of Outside Help." We will gladly send you a copy on request. Address Ebasco Services Incorporated, Dept. C, Two Rector Street, New York 6, N. Y.*



Appraisal  
Budget  
Business Studies  
Consulting Engineering  
Design & Construction  
Financial  
Industrial Relations  
Inspection & Expediting  
Insurance, Pensions  
& Safety  
Purchasing  
Rates & Pricing  
Research  
Sales & Marketing  
Space Planning  
Systems & Methods  
Taxes  
Traffic  
Washington Office

EBASCO TEAMWORK GETS THINGS DONE ANYWHERE IN THE WORLD

**EBASCO SERVICES**

INCORPORATED

NEW YORK • CHICAGO • WASHINGTON, D. C.



# How TRANSITE PIPE, created from asbestos, serves the home owner

as a Flue Pipe—Carries waste gases from gas-burning appliances. A fire-resistant pipe—approved by Underwriters' Laboratories. It is corrosion-resistant, built to last.

as a Plumbing Vent Pipe—Vents the stacks and fixtures of plumbing systems. Durable, cannot rust. Its long length simplifies installation—saves time.

as a Building Sewer Pipe—Conveys sewage to street sewer or septic tank. Special joints that are extra tight guard against leaks, keep roots from clogging sanitary systems.

When Johns-Manville research engineers developed these 3 Transite® Pipes, each for a specific job in your home, they had your health and budget in mind.

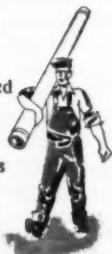
All 3 are made of indestructible asbestos fibers, combined with Portland cement, for corrosion-resistance and lasting strength. You can depend on them to stay on the job, protecting your comfort and safety, year after year.

In addition to advantages for homeowners, these 3 pipes also have characteristics important to the plumbing and heating contractor who installs them. All 3 can be readily installed because they are light in weight, come in long lengths with a variety of fittings.

For more information about how Transite Pipe can guard health and comfort in your home, write Johns-Manville, Box 60, New York 16, N. Y.



## Johns-Manville



"... started cooking up wax formulas on his kitchen stove ..."

FREEWAX starts on p. 62

household than to a more slovenly one. "We discovered," says Feinberg, "that after the house has been treated for insects, the housewife comes home, finds dead bugs over the kitchen, and cleans up. If she's a very careful housekeeper she scrubs the cabinets, polishes off the refrigerator, range, and so forth. The trouble is, when she scrubs up she also gets rid of the insecticide that has coated the walls, floor, and table tops."

That was the genesis of the idea that became Freewax. The rest of it came when Irving noted that good housekeepers also did one other thing after washing up: They waxed the floor and other kitchen surfaces. Putting the two ideas together—wax plus insecticide—seemed so obvious that the Feinbergs wondered why no one had put out an insecticidal wax before. They soon found out why.

"All my brother had to do," says Feinberg, "was to take any standard liquid wax, put an insecticide in it, and in a few days it would turn hard as a brickbat."

• **New Product**—So Irving started cooking up wax formulas on his kitchen stove. Three years and 3,000 formulas later he came up with something that worked. By giving the stuff away with each fumigation, they also discovered that people liked it. Feinberg decided to sell the new product.

That meant a name. He first tried Mir-O-Kill in 1948, but abandoned it when he figured that anything with "kill" in it isn't a good name for a wax. He next toyed with Insecto-Wax and Bug-Wax, but discarded them on the theory that should other similar products come on the market, those names could too easily become generic. Feinberg finally realized that the words that attracted him the most were now, new, and free. He made his final choice because "Freewax seems to say that you get everything with one wax: freedom from worry, or freedom from insects for nothing extra."

• **Out on the Road**—That was in September, 1949. In January of the next year, Feinberg named the enterprise Freewax Corp. (it consisted of the two brothers), picked a local one-man Florida advertising agency, and got a label printed. At this point, J. M. decided that he would have to go out and sell the new product while Irving made it by hand in Sanford.

Irving at least had had some preparation for his job. He had developed

various waxes used to shine up oranges and other fruits for retail trade. He also knew his insecticides through and through. But J. M., though a jack of several trades, had no experience with this new one. His chief asset was his ability to land on his feet.

• **Previous Experience**—The boys had been natives of Quincy, Fla., a little town near the Georgia border, where their father had run a clothing store. Both boys went to the University of Florida, but J. M. quit after freshman year because of the depression. He took up radio repair, then ran his own local radio station briefly in 1932, until the Federal Communications Commission cracked down on the 20-year-old operator for not having a license. ("The publicity did me a lot of good," says Feinberg.) Then he went into the appliance business, switched to contracting for government housing during the war when appliances dried up, resumed his appliance business afterwards.

• **Selling Job**—"The first thing I found was that trying to sell a floor wax or an insecticide is rough," says Feinberg. "A million companies make them. Each one has about the same product but claims to be better than all the others."

Feinberg's position gave him several natural advantages over other makers of floor waxes. He was firmly convinced then, as now, that Freewax is the only really new thing in the field in 20 years and that it will some day be one of the largest-selling waxes in the world. Also, unfettered by previous experience or knowledge about the field, he had no inhibitions. "We had the whole world for a test market," he says. He picked St. Petersburg, Fla., pretty much at random. "I thought I would try a department store and a grocery store to see which outlet would sell the best," he says. St. Petersburg had a department store (Maas Bros.) and is "cut off from the rest of the world."

Maas Bros. gave Feinberg a vital piece of information. They told him that if he wanted to sell his product across state borders, he'd have to get a registration number from the Dept. of Agriculture, which keeps an eagle eye on all insecticides. So Feinberg made the first of what turned out to be many trips to Washington. The first—like so many later on—was discouraging. No one had heard of an insecticidal wax before. People were frankly skeptical.

• **Testing**—Feinberg found that he would have to have some reputable outside laboratory make exhaustive tests to prove that his wax was both effective and nontoxic. "I got caught in the crossfire between two sections at Agriculture. Make it safe enough to suit the toxicologists, and the insecticide

## How **TRANSITE PIPE**, created from asbestos, will improve the water system of your town

This white pipe  
developed by  
Johns-Manville scientists from  
indestructible asbestos fibers  
has proved a major advance  
in America's water  
distribution systems

Thousands of communities have improved their water service and reduced pumping costs with Transite® Pipe water mains.

**Because it is made of Asbestos and Portland Cement**, Transite resists corrosion, eliminates a prevalent cause of rust found in many water systems.

**Because it is noncorrodible**, it assures your community an endless stream of clean, clear water from pumping station to the consumer.

**Because it is nonmetallic**, the interior surface will not build up deposits. Its flow capacity stays high.

**Because it is light in weight**, Transite Pipe is easy to handle, economical to install. Its rugged strength withstands severest service conditions.

The choice of Transite Pipe for your town's water mains can mean savings to you and to your town's budget. For more information, write Johns-Manville, Box 60, New York 16, N. Y.



## Johns-Manville





New products are born in the minds of men. First as an idea or theory.

Then blueprints are drawn up detailing the specifications for the various parts that go to make up the whole.

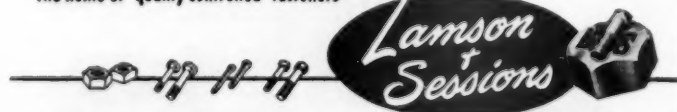
After the parts are fabricated they are little more than a hodge-podge of useless pieces until FASTENERS enter the picture.

BOLTS, NUTS and SCREWS bind the parts together into the final, useful product.

FASTENERS, in short, are the final KEY to transmitting an idea for a product into reality.

That's why Lamson & Sessions constantly emphasizes the importance of fasteners. Why we invite you to play safe and check with us on any fastener problem.

The home of "quality controlled" fasteners



The LAMSON & SESSIONS Co. • General Offices: 1971 W. 85th Street, Cleveland 2, Ohio  
Plants at Cleveland and Kent, Ohio • Birmingham • Chicago

boys would say, 'No, it won't kill bugs.' I could see this was going to take time. So I thought maybe I'd get an insurance policy to protect my vendors meantime." Lloyd's came through with a policy insuring each vendor up to \$250,000 liability. It cost Feinberg \$1.47 per \$1,000 in goods sold.

When Feinberg finally got back on the tracks in April, he went to Orlando, Fla., to pursue his design of testing Freewax in grocery stores. Another mistake. "I discovered that all the chain buying was done out of Jacksonville," Feinberg remarks. But he had a piece of luck nevertheless. He bumped into an old University of Florida acquaintance who knew the manager of the local Sears store. This contact ended up with Sears putting on a Freewax promotion that sold 1,200 cans of the stuff in two weeks, at 98¢ a pint. Feinberg notes:

"That was about double of the price of regular wax. We were trying for a better wax than others. We used 24% solids as against 12%. Also, we put in a soluble rubber base made by Goodyear to waterproof it."

• **Hot Item**—Sales were so good in April that Feinberg moved up to Jacksonville. There he put Freewax into the Winn & Lovett grocery chain, on condition that Feinberg guarantee to take back any wax that couldn't be sold. Winn & Lovett placed an order for 100 cases, which, says Feinberg, "damn near required us to put an enlargement on our plant."

Two more mistakes. Feinberg learned in Jacksonville that you can't borrow money from a bank for advertising. (He tried to get \$5,000 to back up the Winn & Lovett promotion with ads.) He also put out a lot of wax in Miami on a consignment basis. Feinberg learned that wasn't the same as having money in the pocket.

"We ran out of money and wax at the same time," says Feinberg.

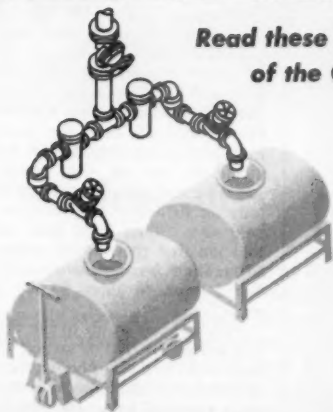
• **False Dawn**—By the fall of 1950, however, things had begun to look up. In September the Dept. of Agriculture finally came through with a registration number. By October there was enough money coming out of Jacksonville to keep the pot simmering. At that season of the year, Miami looked like the best market. Feinberg went there, appointed a broker for the territory, found himself a new ad agency ("The first one got words misspelled.") Sales were going fine. Then—suddenly—no repeat orders.

This scaring experience taught Feinberg Mistake No. 4: "Women don't read the instructions on the back of cans. Our wax was full-bodied, so we told 'em to spread it thin. But they were used to really slopping it on. Our stuff streaked to beat hell."

To add to Feinberg's troubles, the rubber base made Freewax tough to

## This CRANE VALVE Solved a Sticky Problem

In this case, a paint factory had a problem in handling liquid latex. Sticking valves delayed production; valve maintenance cost was out of reason. Then the remedy was found in this exclusive design—in the big Crane line. It's the place to look first for valves for any need. They give you more satisfaction, cost less in the long run when they're Crane quality.



### Read these Facts of the Case!

**Where Installed:** In a paint factory making rubber base coatings, on liquid latex supply lines.

**Trouble Encountered:** Valves formerly used were conventional design with working parts exposed to fluid. The sticky latex accumulated and congealed in the bonnet and stem threads. Valve operation was difficult or impossible, forcing frequent clean-outs, costly production delays.

**Solution and Result:** Crane Diaphragm Valves completely stopped the trouble. Their sealed-from-fluid bonnet keeps latex out of the working parts. They operate smoothly; never stick. Adopted as standard equipment on this plant's latex lines.

**More CRANE VALVES**  
*are used than any other make*

CRANE CO., General Office, 836 S. Michigan Ave., Chicago • Branches and Wholesalers Serving All Industrial Areas

VALVES • FITTINGS • PIPE • PLUMBING • HEATING



## New, Personalized BUSINESS GIFT

Delightfully different, for CUSTOMERS, ASSOCIATES, EXECUTIVES, FRIENDS.

Tasteful, distinctive treasure chest of special Holiday candles by America's foremost candle makers. Stately, Pine scented Red Tapers for the festive table; gay, colorful Pine Tree or Snow Balls for fireside or mantel, adorable Santa for children, traditional Bayberry candles to bring luck to the house. Each packed for individual gift-giving, all assembled in attractive Gift Pack with personalized greeting card.

SEND US YOUR LIST, WE SHIP POSTPAID ANYWHERE.

AJELLO CANDLES, Gift Division, Mamaroneck, N. Y.



ENSEMBLE  
GIFT PACK

\$7.95  
prepaid

Ajello  
Candles

ORDER NOW FOR  
CHRISTMAS DELIVERY

SPECIAL QUANTITY  
DISCOUNTS

## TWA EXPANDS CARGO SERVICE

Now TWA Super Constellations speed shipments coast to coast...add 51,000 ton miles daily cargo-carrying capacity to TWA's mighty fleet.

New weekly all-cargo service to and from Europe.

Fast, all cargo TWA "Sky Merchants" span U.S. overnight.

Frequent flights assure direct shipments to key cities throughout U.S. and overseas. Phone nearest TWA office for rates... quick pick-up.

Remember —  
all TWA flights carry  
Air Mail and Air Cargo

**TWA**  
TRANS WORLD AIRLINES  
U.S.A. • EUROPE • AFRICA • ASIA



"... meanwhile, another long train of events was in the making..."

FREEWAX starts on p. 62

get off the floor. ("We finally found a way—steel wool.") Just at this point, however, the problem became more or less academic. Goodyear informed Feinberg that the Korean war made it necessary to cut off his supply of rubber.

• **More Trouble**—That was in October of 1950. Back went Irving, through all the formulas. By January, 1951, he came up with another one. "But then," notes Feinberg, "we couldn't get any cans because of Korea."

Cans or no cans, the Feinbergs would have had problems on their hands. There was some \$10,000 worth of the old product on store shelves. This had to be redeemed. There was likewise the problem of pricing. Since the new product was a lighter mix, Feinberg felt he had to reduce the price—from 98¢ to 69¢. "At that price we weren't making any money," he comments, "but we were afraid of pricing ourselves right out of the market."

Eventually, the can situation began to ease up. Feinberg decided that he might as well switch to lithographed cans; he had to make a change in any case, and this way he wouldn't be bothered by labels peeling off. The smallest order Feinberg could place was for a carload (\$6,000 worth).

• **Money Worries**—By March he had redeemed all the old cans, and money had come to be a major consideration. He traveled all over the South and East looking for capital. But no one—including any of the groups that specialize in looking for struggling new ventures to help—came through. Feinberg says: "One large food company told me that they would rather spend \$10-million buying an already established product than \$5,000 buying mine."

Feinberg was in up to the neck. He had put in \$10,000 of savings from his appliance business, plus another \$15,000 that he had borrowed from a bank on a personal loan. His brother augmented the capital from time to time by putting raw materials in bonded warehouses and borrowing against it. Neither took any money out of the business.

• **New Backer**—Meanwhile, another long train of events was in the making.

When things had been at their blackest, during the can and rubber shortage, Feinberg had decided the only way out was to sell to the General Services Administration in Washington. But he had to meet GSA specifications. In all, Feinberg had to have three outside





## Treasured more than Old Masters!

Today even casual photographers find it easy to get pictures like these... clear, sharp and correctly exposed... *treasured* pictures that keep alive memorable places and events.

In fact, there's seldom a *miss* in a roll or cartridge of film anymore... never a disappointment due to incorrect exposure... thanks to the development of the accurate photo-electric meter which eliminates all guesswork from photographic exposure.

This compact instrument accurately measures the light reflected from the scene or subject to be photographed and instantly gives correct camera settings. The result is a perfectly

exposed picture *every time*... with any type of still or movie camera, even when using critical color film. *No wonder the WESTON Exposure Meter ranks so high on Christmas gift lists for camera fans!*

The photo-electric exposure meter too, was a WESTON development; and the meter bearing this name occupies the same degree of leadership in photography, as do WESTON instruments so familiar throughout all industry for measuring and controlling light, electricity, speed, temperatures, and pressures. WESTON Electrical Instrument Corporation, 617 Frelinghuysen Avenue, Newark 5, New Jersey.



**WESTON** *Instruments* ...TO INDICATE—RECORD—CONTROL



as many  
colors as  
Joseph's  
coat!



#### 14 COLORS TO IDENTIFY... CODE...DECORATE...TRIM

No other tapes offer you so many colors . . . to multiply your ideas and uses for this cost-cutting tool. MYSTIK Brand Waterproof Cloth Tapes come in 14 colors—white, black, red, green, blue, yellow, brown, wine, pink, tan, light blue, light green, gray, olive drab.

MYSTIK Brand Tapes often replace paint striping on products . . . provide a colorful hinge or binding. No wonder the world's largest maker of self-stik waterproof cloth tapes offers you this extra advantage . . . color! Write for information and samples. Mystik Adhesive Products, 2636 North Kildare Avenue, Chicago 39.

Self-Stik Waterproof Cloth Tapes — 14 colors! • Masking Tapes for every application  
Uncoated Cloth Tapes • Mystik Protecto-Mask® • Mystik Spra-Mask® • Mystik Sand-Blast®  
Mystik Dri-Pipe® Insulation • Mystik® Freezer Tape • Mystik® Book Repair Tape

Trademark Mystik Registered

© Mystik Adhesive Products, 1952



"... the \$50,000 bag his  
erstwhile backer had left  
him holding . . ."

**FREEWAX starts on p. 62**

analyses made before the agency would O.K. the new insecticidal wax. ("I kept going back and back and back.")

It was September, 1951, when GSA finally came through with its approval. When the skies opened up for Feinberg, they really opened up. Through a friend, Feinberg had found himself a backer, a man who promised to finance a new plant and new raw materials in return for 50% of the stock.

• **Out Again**—"I felt mighty good," says Feinberg. "It looked as though years of work would finally pay off." He went to Washington to develop GSA's specification. Then the roof fell in again.

"In checking our specifications with the Dept. of Agriculture, we learned that chlordane—the insecticide we'd used right along—was out. It was felt that it might build up a toxic condition over a period of time. A new regulation on it was due the next day. We could use up our supplies of chlordane on hand, but buy no more."

So back went the Feinbergs to search for a new insecticide. Feinberg found it—lindane. ("It looked good and had low toxic values.") But it cost \$6.25 a lb. as against 65¢ for chlordane.

• **In Again**—Still, this didn't stop Feinberg. By November things were looking up again. The Dept. of Agriculture came through with its registration for Freewax using lindane. GSA followed up with a new O.K. in December. Feinberg was in New York at that time, ordering new plant equipment and supplies. He had also worked out a line of attack. Grocery stores were to be the meal ticket. So in January, 1952, he packed his bag to go to a food brokers' convention in Atlantic City, to line up new agents.

• **Out Again**—The day before Feinberg left for New Jersey, the backer backed out.

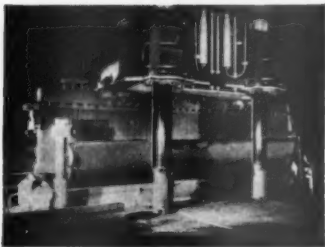
Had it not been for this catastrophic news, things would have gone fine in Atlantic City. The brokers showed interest. They were nibbling. But Feinberg, uncertain of the future, couldn't write orders. Biggest thing on his mind was the \$50,000 bag his erstwhile backer had left him holding.

• **Home Stretch**—Back in Florida in February, Feinberg again scurried around looking for capital. He found it, and in a most unlikely place—right in his own backyard in Tallahassee:

"The man who was printing some folders for me said he'd like to buy some stock in my company suggested



*This huge boiler drum section was formed on B&W's giant new press from the heaviest steel boiler plate ever rolled. Editors of leading technical publications witnessed this new production operation installed at B&W to speed fabrication of steam generating equipment to meet the urgent requirements of America's fast-growing power companies.*



## Shaping **MORE POWER** for America **...FASTER**

Huge steel plates 42 feet long are formed into sections of massive boiler drums on the new press recently installed by Babcock & Wilcox. Largest ever built for this purpose, the press is speeding fabrication of power plant boilers by considerably reducing total plate bending time and permitting the use of fewer and larger boiler drum sections, thus eliminating welding and X-raying of additional seams required when smaller plates are used.

To help electric utilities hold down costs by using high pressure steam boilers will require drums with thicker and thicker steel walls. The new press, designed and under construction in advance of America's record power expansion, bends thicker boiler drum plate than any other equipment now in operation, and enables B&W to meet all anticipated future requirements.

Deriving the utmost energy from common fuels to help increase the output of low-cost electricity is B&W's main engineering objective. B&W's current multi-million dollar expansion of facilities, trained personnel and *ideas* reflects America's growing power needs. H-147



**Faster, Easier Filing in**

# Less floor space!

... with

**Rock-a-File**



**Modern filing**, made possible by Rock-a-File's revolutionary side-opening compartments, is faster and more efficient because each compartment "rocks" open to make its entire contents instantly accessible. More than that, *Rock-a-File actually requires less floor space than old-fashioned drawer-type files!*

Rock-a-File compartments project less than eight inches when open, "rock" open and shut effortlessly, and permit two or more persons to use the same file cabinet simultaneously. Alcoves, corridors, small corners and many other hitherto impractical locations become ideal filing space with Rock-a-File.

And Rock-a-File is *safe*, too... gravity center remains always within the cabinet; no danger of toppling, even with lower compartments empty.

See your dealer or write for a descriptive folder and name of nearest dealer today... learn how Rock-a-File can save filing time, costs and space in your business.



For information, address Dept. B

**ROCKWELL-BARNES COMPANY**  
35 East Wacker Drive • Chicago 1, Ill.



A typical vault installation showing 4-compartment and 2-compartment Rock-a-Files in tiers.



A 2-compartment Rock-a-File in private office use. Note close position... no need for user to rise; just swing around in chair.

I try to sell the rest of it right in town. Then the dentist I was going to said he'd like to buy some. Damn, even my lawyer bought some stock." A Dallas tax consultant who worked for the printer was brought in to set up the revised corporation, and he bought some stock. So did the printer's brother and the Feinbergs' own elder brother, Pincus. In one afternoon plus a few hours Feinberg had refinanced his faltering enterprise to the tune of \$200,000. (He and Irving held 25% each of the voting stock.)

From that time on, things dropped neatly into the groove for Feinberg. His publicity man in New York was beginning to earn his keep. Mail poured in at a rate of 2,000 letters a week. Feinberg decided to branch out, appointed a broker in Atlanta. In March the new equipment had been set up back in Sanford.

• **Widening Market**—Before it was in operation, a Houston broker whom Feinberg had met in Atlantic City came through with an order for 700 cases. The broker had simply appointed himself agent without portfolio. "So we were forced into Houston," recounts Feinberg, who hopped a plane to open the territory up. He barnstormed for two weeks, set up brokers in Dallas, Fort Worth, and Birmingham, Ala.

From the letters he was getting, Feinberg knew he had a national market, not just a southern one. His next major step was a trip to New York in August, where he looked around for an advertising agency with national experience. He didn't make his choice, though, until later:

"When I got back to Florida, I heard from Ruthrauff & Ryan. They had heard about Freewax in Texas and were interested. One of their vice-presidents flew down. He was enthusiastic." R&R got the job on Sept. 10. On Oct. 6 the new "It's murder! It's magic!" campaign made its debut.

• **The Operation**—Currently, Freewax is selling in 12 states at the rate of \$100,000 (retail value) a month. The price is now 79¢ a pint.

The new Sanford plant, with three employees, has a capacity of 30,000 cases of Freewax a month. But Feinberg hasn't any further plans for expanding that operation to keep pace with new demand from new territories. It costs too much, he figures, to ship raw materials from North down South, then reverse the procedure with the finished product. So Feinberg will probably franchise manufacturing operations in other parts of the country and overseas.

When will Freewax begin to pay off? "When we double today's sales," Feinberg thinks, "we'll be operating in the black."



## What! No cat in the cracker barrel?

**H**ERE is today's country store. In this one, farm families from an 8800 square-mile trading area select their food supplies from 3000 well displayed items.



*The cat and the cracker barrel are gone . . . gone with the overhead ball of twine, the clutter of open bags and boxes, the vinegar drawn from a spigot . . . gone with the era of subsistence farming.*

One out of every three of our modern supermarkets is located in a town under 25,000—where rural customers predominate. For the passing of the butter churn and soap kettle meant volume trade from modern farm fam-

ilies—and grocery operators place their stores where the business is big.

Retailers of *all* lines have met the new age in agriculture with better ways to serve agriculture's people

—with modern stores, new merchandising methods, preferred quality brands.

There is profitable volume in the new Rural America. The dealers are there, the products are there, the customers are there. Is *your* advertising working for *your* product in the farm family's own national magazine?

It is for many a manufacturer. Their investments in Country Gentleman have made it one of America's leading magazines in advertising volume.

# Country Gentleman

***The family magazine for  
better farming . . . better living***







## Open water at an Arctic outpost

**The important thing on this order is speed — so let's get going!**

These were the instructions given by high-ranking Air Force officers to Graybar's Dayton office on an important order of telephone equipment. Destined for an ordinarily ice-bound Arctic port, the shipment had to arrive during the short ice-free season.

Graybar immediately contacted its supplier of telephone equipment—the Western Electric Co.

Years of close distributor-manufacturer cooperation paid off. The efforts of Western Electric personnel in six different manufacturing locations were smoothly coordinated.

By the deadline date, the order was complete. Graybar turned over to the Air Force for shipment over 300 different kinds of vital telephone equipment. Placed aboard a waiting freighter, the order arrived "on schedule" during open water.

● Though perhaps not applicable to your electrical supply problems, this story illustrates Graybar's ability to deliver the goods.

Graybar distributes more than 100,000 different items — products manufactured by over 200 of the nation's leading electrical manufacturers. Everything electrical, in fact, for industry, power transmission, transportation, construction and communication.

A nation-wide warehouse system . . . modern inventory methods . . . and a day-by-day knowledge of the over-all supply picture helps your near-by Graybar office serve you promptly and efficiently. Whatever your electrical requirements, it will pay you to consult your local Graybar Representative.

275-211

**GRAYBAR ELECTRIC CO., INC.**

Executive Offices: Graybar Building, New York 17, N. Y.

*Call Graybar first for...*



## MARKETING BRIEFS

**Smoker's poll:** "I like Ike" cigarettes (BW—Aug. 30 '52, p. 44) are outselling "Stevenson for President" by a nose: 51.8% against 48.2%, says Rum & Maple Tobacco Corp., distributors. After election day, the two packages will be scrapped for one, called President cigarettes.

**Philadelphia** will soon have a new, \$40-million shopping center, including a 12-story hotel, office building, apartment houses, and some 100 shops. The River Park Regional Shopping Center was designed by Welton Becket & Associates (BW—May 17 '52, p. 48). Realtor William McCarter sold the 133-acre site to Pentagon builder John McShain, will act as rental agent.

**A sales meeting via TV** is in the works for dealers of James Lees carpets. Lees' president Joseph Eastwick says its Dec. 8 meeting is the first industrial use of Theatre Tele-Sessions over Theatre Network Television. The program will be shown in major motion picture houses in 15 cities over a closed circuit; it will originate in NBC-TV studios in New York.

**Group charge account services** to get small merchants out of the cash-and-carry class (BW—Sep. 23 '50, p. 58) have spread to Washington, D. C. In member shops of the new Central Charge Service, customers show cards when they buy. The store sends a charge slip for the item to the service, which deducts a fee and pays the store. The service bills customers for all purchases each month.

**Swank specialty shops** in Manhattan say their new Thursday night openings bring them plus business from a new market: the career girl. After six sales at Gunther-Jackel, Jay Thorpe, Milgrim, and Tailored Woman brought a 15% to 20% increase in the day's volume in the first five weeks.

**Television receiver output** will reach 6.2-million in 1953, highest since 1950's record, says General Electric's tube department. That will be some 750,000 more than 1952 output.

**Grocers' give-aways** seem to be reaching price-war dimensions in Portland, Maine. At least seven stores there are competing for customers by handing out dolls, nylons, and comic books.

**Magazine advertising** during the first nine months of 1952 hit a new high of \$396-million, says Publishers Information Bureau. That's 8.8% over 1951.



## *Before you blame the file clerk...*

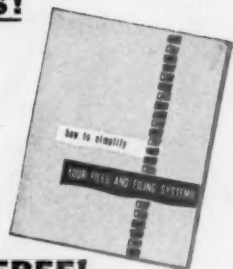
### **CHECK THE EFFICIENCY OF HER FILING TOOLS!**

**More papers are now filed by fewer people at the DeVilbiss Company**

In the paint spray division of this firm, about 30,000 documents must be filed each month. With the new filing systems and sorting methods which were recommended by Remington Rand, they have been able to centralize the active files, with a program for retaining records in the files only as long as they are active. In this way, an expanded work load is handled with a 25% saving in clerical time and a 30% saving in floor space.

**25% clerical saving at Newport News Shipbuilding and Dry Dock Company**

When this firm wanted to reorganize its Administrative Files, it was thought best to obtain competent advice from outside. Remington Rand was called in and one of our Records Consultants made a thorough study; recommended many changes to simplify the filing. Then Remington Rand actually installed the new filing systems and trained the employees to operate them. Result was that three clerks were able to do work previously requiring four.



### **FREE!**

**This 36-page manual on practical filing procedures shows you:**

How to choose a filing system to find the right record immediately. How to save filing motion and floor space. How to keep track of borrowed records and tighten up file organization.

Ask for manual LBV-396. Call our local Business Equipment Center, or write to Management Controls Reference Library, Room 1451, 315 Fourth Ave., New York 10.

***Remington Rand***

## TRANSPORTATION



Bringing the candidate to the people is a full time job for

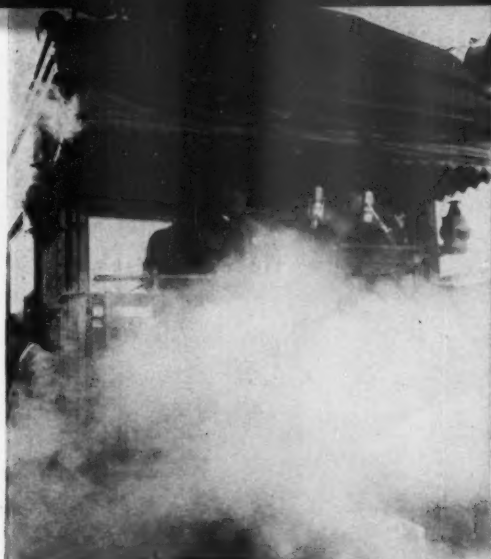
### The Man Who Keeps the Special Rolling

(Story continues on page 80)



Lou Kelly signals O.K. . . . the schedule's set, but . . .

. . . oops, a stop is added.



You blow off steam first so . . .



. . . people get a clear look at Ike



Kelly briefs the conductor . . .



. . . who gives orders to the engineer.



# "HO HUM! ANOTHER DAY SHOT!"

For 58 years, many companies have reduced cash advances to salesmen by half through the use of **Travelletters** — simplifies auditing tool

\$

## TRAVELETTTER

**TRAVELETTERS** minimize advances, eliminate expense checks, cut accounting costs — save time, save money. They are simple, safe credentials, limiting amounts paid to one week's actual expenses, honored everywhere by hotels and motor courts.

**Benefits to home office:** Less "idle money" put, more efficient expense control, easier auditing. One check replaces tens, or hundreds. No wastes. No losses. No extras.

**Benefits to traveler:** Expense money always on call, anywhere. No time lost meeting company checks. No date delayed or orders missed. No trouble or worry due to lack of funds.

Money directly saved by **Travelletters** more than repays their nominal cost. Get this absolute assurance against common wastes of time, trouble, money. **NOW!**

For complete details, address  
**TRAVELETTTER CORPORATION**  
Greenwich, Connecticut  
Since 1894

## WALKS • DRIVEWAYS • PLATFORMS

Cleared **FAST** with  
the **jari**  
ROTARY  
SNOW PLOW

GUARANTEED  
RESULTS



Cut snow removal from hours to minutes around your plant with this powerful, self-propelled Jari, Jr. Rotary Snow Plow for walks and driveways. It's self-propelled, and fast . . . clears 4500 sq. ft. and handles up to 18 tons of snow . . . per hour!

**SPECIFICATIONS:** 2-wheel drive, self-propelled with positive forward movement. Easy starting 1½ hp. gasoline engine, independent clutch. Clears a clean 16-inch path. Rotary rake chews hardened snow for easy removal. Adjustable casting chute. Weighs only 129 lbs. Extra attachments: 28" sickle bar or 20" reel for use as a power mower.

At your dealer or write to

**jari** PRODUCTS, INC.  
2938Z Pillsbury Ave., Minneapolis 8, Minn.



At stops, phones are hooked on for politicians, reporters.



It's getting later and . . . . . we're an hour behind time.





Broken spring on the candidate's car means a new headache.



Problems never end when you're shepherding . . .

## Politicians on Wheels

(Pictures start on page 78)

William Jennings Bryan put the campaign train into politics, but he never rode the Inaugural Special to the White House.

What he did do was develop the routes and the schedules of whistle stops that presidential candidates Eisenhower and Stevenson have been following this fall. Tank towns along the tracks have come to expect a visit, every four years.

No candidate dares ignore the campaign train. Adlai Stevenson wanted to try it; his first plan was to stump the country by airplane, television, and radio in a hasty attempt to catch up with Eisenhower's already established popularity. Democratic leaders in the sticks quickly disillusioned him. They sent word that no one was going to vote for someone he hadn't seen in the flesh, no matter how well the

We make rings, bands, components and assemblies by either fusion or resistance welding of ferrous or non-ferrous metals. We believe that our quality is second to none and we know our products are reasonably priced. Many "Blue Chip" companies are our customers. Their products range from fractional horse-power motor shells to jet engine components.

*What can we make for you?*

### GO "AMERICAN" FOR CIRCULAR WELDED PRODUCTS

Let us send you more facts or better yet send us your specifications for prompt quotations.

Send for your copy of our 20 page illustrated catalog



*The*  
**AMERICAN WELDING  
& MANUFACTURING CO.**

380 DIETZ ROAD  
WARREN, OHIO

# LABORER



Take the shovel out of a man's hand and put him on the seat of a "PAYLOADER" tractor-shovel. He'll show you how to move bulk materials faster, easier and cheaper.

Many thousands of companies in practically every industry are profiting with "PAYLOADERS". They dig, load and carry all types of bulk materials — unload box cars — handle bags, barrels, bales — bulldoze, level, grade — remove snow — lift, push or pull — indoors or outdoors, over paved or unpaved surfaces. They eliminate slow, costly, laborious methods . . . save time, money and boost production.

Regardless of size of your operations, there's a "PAYLOADER" to fit your job — eight sizes with bucket capacities from 12 cu. ft. to 1½ cu. yd. The Frank G. Hough Co., 700 Sunnyside Avenue, Libertyville, Illinois.

## World-wide Distribution



The "PAYLOADER" is sold by a vast network of leading Distributors in all principal cities throughout the world. They have complete parts stocks and finest service facilities. Look for your "PAYLOADER" Distributor in the telephone classified under "Contractors' Equipment" or "Trucks — Industrial", or write direct.



**PAYLOADER**  
THE FRANK G. HOUGH CO. • Since 1920



candidate might write or speak. So Stevenson followed the example of Harry Truman, top whistle-stopper of them all, and began to prowling the mountains and prairies, depot by depot, in his 13-coach train.

Today, the Eisenhower, Stevenson, and Truman Specials are slowing to a stop. Before Election Day, they will have accumulated upward of 50,000 mi. of travel, presented their campaigners to millions, flattered many a politician by having him aboard to hobnob with the great for a spell. There's the risk, too, of insulting someone. Legend has it that Charles Evans Hughes' snub of Sen. Hiram Johnson cost the Republicans California and the Presidency in 1916.

The problem of where the train is to go and where it is to stop is for the politicians. They decide on, say, Des Moines for a farm speech, Detroit for a labor speech, Boston for viewing communism with alarm.

• **The Man**—To get the train there, on time and comfortably, is a transportation problem. Both political parties seek out the best men they can get to solve it. Since 1936, Dewey Long, a White House employee, has been handling campaign specials for Presidents. Gov. Dewey entrusted to Clarence LaFond of the New York Central the train job for his two campaigns. Again this time, LaFond gave a hand to Lou Kelly of the American Express Co. on the Eisenhower Special. Kelly, a bluff veteran of the Air-Transport Command in England during World War II, has handled tricky train problems before. To connect the Prestwick air base with bases in Scotland he wangled from the British a special night train without published number or schedule called the Ghost Train.

Kelly has been handling Eisenhower's transportation since Ike decided to come home in June to campaign for the Republican nomination.

• **The Train**—Eisenhower's first campaign special swing took off from New York. The route called for Kelly to choose the New York Central for the initiating railroad. An 18-car, diesel powered, all-Pullman train was put together, with a press work car and lounge for news reporters, a private observation car, and compartment sleeping space for staff, newsmen.

As the train goes from one roadbed to another, each succeeding railroad hooks on its own engines and dining cars, and provides the crews.

Once the politicians have decided where they want the candidate to go, the transportation man sits down with the originating railroad to work out the time schedule. Kelly drew up Eisenhower's schedule with New York Central. Then the railroad negotiated

*If you're using high-priced  
quenching oils*

**YOU'RE PROBABLY  
WASTING MONEY!**

Verified reports from a great many heat-treating plants prove conclusively that they have saved money by switching from an expensive quenching oil to a Sun Quenching Oil. In every instance these plants have maintained—or surpassed—their standards of quality

through the use of Sun's specially refined naphthenic quenching oils.

These are facts—not idle boasts. If you would like to see field reports giving the details of these plants' quenching operations, and the benefits they obtain, fill in the coupon below.

*Sun Quenching Oils can handle  
95 percent of all quenching jobs*

**1 They cost less.** You save on the purchase price.

**2 They have low drag-out.** When heated they thin out more than paraffinic oils, draining off parts more rapidly. You reduce your operating costs.

**3 They keep systems clean.** Because of their natural detergency, the tank and system stay clean. Coolers keep operating at peak efficiency.

**4 They have long life.** Sun Quenching Oils do not thicken up in service, and under normal operating conditions, they need never be replaced.

**5 They assure a uniform rate of cooling.** These oils have excellent metal-wetting characteristics. They do not lose quenching speed after extended use.

Dept. BW-11

**SUN OIL COMPANY, Phila. 3, Pa.**

Perhaps I am paying too much for quenching oil. ☐ I'd like a Sun Representative to show me field reports of other companies' experience with Sun Quenching Oils. ☐ Please send me the informative booklet "Sun Quenching Oils."

Name \_\_\_\_\_

Title \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

**SUN INDUSTRIAL PRODUCTS**

SUN OIL COMPANY, PHILADELPHIA 3, PA. • SUN OIL COMPANY, LTD., TORONTO AND MONTREAL





Each one of these Hackney air receivers meets the special requirements of a specific manufacturer. Yet, all assure the same basic advantages of greater strength—lighter weight—neater appearance—faster and easier assembly into user's finished product.

They're typical examples of how Hackney Deep Drawn Shapes and Shells can be designed to fit product specifications in endless variety. Write for full information on how you can design better and more profitable products with Hackney Deep Drawn Parts.

Write for a complimentary copy of our anniversary booklet, "Design for Progress."



**Hackney**  
CORPORATION

### Pressed Steel Tank Company

Manufacturer of Hackney Products  
1492 S. 66th St., Milwaukee 14  
1397 Vanderbilt Concourse Bldg., New York 17  
207 Hanna Bldg., Cleveland 15  
936 W. Peachtree St., N.W., Room 115, Atlanta 3  
208 S. LaSalle St., Room 789, Chicago 4  
555 Roosevelt Bldg., Los Angeles 17

CONTAINERS FOR GASES, LIQUIDS AND SOLIDS

arrivals and departures with each railroad onto whose tracks the train would go. The special gets a train number as it moves from division to division—and is fitted into the regular runs of expresses and locals for the day. Truman's train is usually called the Potus (President of the United States.)

• **Some Slack**—Schedules are devised so that there will be some leeway to avoid holding up regular runs. Seldom does a paying passenger on an express suffer any delay from a Campaign Special.

That is about as much priority as Eisenhower's special ever enjoys. That means the transportation manager has to see that the candidate keeps his talks closely on schedule.

In the first two days of Eisenhower's New England trip the Special ran more than an hour behind the first day, more than a half hour the second. But for the entire campaign Kelly says his record will be better than 90% on time.

Dewey Long tells of the time in 1948, when Truman was 35 min. late leaving Gainesville, Tex., due to a delay in switching from Katy to Santa Fe engines. Truman had to get to the Oklahoma City fair grounds on time—the hard pressed Democratic fund raisers had paid out precious money for a radio broadcast.

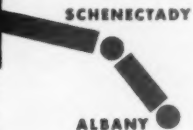
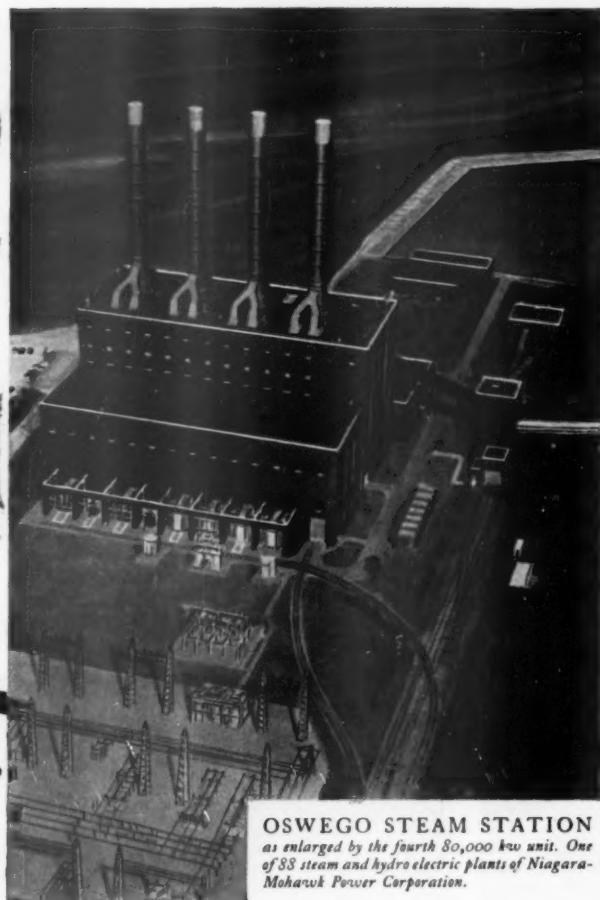
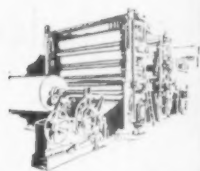
Long had no long stretches where he could order a high ball. The schedule was for eight stops in the 140 mi. trip. He told Truman he'd have to cut his speeches a minute here, cheat a hand-shaking committee a minute there. The Potus pulled into Oklahoma City with five minutes to spare.

• **If Only . . .**—This is what makes the transportation man's job a hectic one. If candidates didn't speak too long, if equipment didn't go on the blink, and if the politicians didn't change their plans in mid-trip, the job would be a snap.

• **But, No**—In practice, it happens more like this: Last week a local committee from Woonsocket, R. I., pleaded for a back platform stop as Eisenhower went from Taunton to Worcester, Mass. Kelly got the decision for the stop from Gov. Sherman Adams, Eisenhower's top adviser, at 2 p.m.

The scheduled route swung north of Woonsocket on the way to Worcester. The engineer could have stopped, then backed into the Woonsocket station. But that is bad railroading: No candidate wants to back a train into prospective voters—and it's better showmanship to come tooting into the station with flags flying.

Kelly, and Ed Gouin, New Haven Railroad official, phoned the dispatchers at Pawtucket and Mansfield, and worked out a solution. Using a Y at Mansfield, the train was backed into the Pawtucket yards, putting the engine at the head of the train on the main-



**OSWEGO STEAM STATION**  
as enlarged by the fourth 80,000 kw unit. One of 33 steam and hydro electric plants of Niagara-Mohawk Power Corporation.

## PRIVATE ENTERPRISE *In Action...*

The Niagara-Mohawk Power Corporation has 7000 circuit-miles of transmission lines and 85,000 conductor-miles of distribution lines in upper New York state. Its entire system has a rated capacity of 2,186,451 kw with 600,000 kw now under construction.

A current example of their enterprise is the Oswego Steam station, designed by their engineering department with construction supervision by Stone & Webster Engineering Corporation.

The benefits of competent business management of a privately-owned utility are again demonstrated by the Niagara-Mohawk system.



**STONE & WEBSTER ENGINEERING CORPORATION**

A SUBSIDIARY of STONE & WEBSTER, INC.



# Facts you should know about this leading cellulose



**RAYONIER CONSTRUCTS FIFTH PLANT TO MEET THE GROWING**



## **RAYONIER PRODUCES CHEMICAL CELLULOSE**

All the plastics, all the synthetics come from the chemistry of polymers. Cellulose, a natural, replenishable polymer is one of the cheapest, most adaptable. Rayonier derives cellulose from wood, purifies it with special, improved chemical techniques. Due to the demand for Rayonier chemical cellulose, each of the four Rayonier plants can concentrate on long-runs of a particular type, achieving quality and uniformity impossible in short-run operation. Through years of research in this field, Rayonier has originated exclusive processes and will continue to play a major role in the development of chemical cellulose as an important source material for finer products.



## **RAYONIER SERVES GROWTH INDUSTRIES**

Rayonier chemical cellulose is the basic raw material for a great diversity of industrial uses, all with important growth potential. These include rayon, acetate, cellophane, high tenacity tire cord and fabric, plastics, photographic film, fine paper. Among the new uses which show great promise are mechanical rubber goods such as belting and hose and rugs and carpets where greater beauty, greater durability, lower cost are important factors. Indeed, the future for chemical cellulose appears unlimited. For out of the chemical laboratories will come more and more improved, economical products to further the growth of America's great cellulose industries.



## **THE FUTURE OF CELLULOSE**

The rayon industry starting in 1911 grew up in America to 1,300,000,000 lbs. by 1952. Production in 1951 exceeded 1950 by 13%. Per capita consumption of rayon in the U.S.A. is continuing to rise. . . . Cellophane production in the free world requires 217,000 tons of chemical cellulose in 1952, and 365,000 tons by 1955. . . . It is estimated that the rehabilitation of the industries of Japan and Europe which use cellulose will increase world requirements to 3,000,000 tons by 1955. Rayonier is expanding to meet this high demand. For when a chemical as new as cellulose comes so far so fast by virtue of its versatility and moderate cost, there's no limit to its future!

e producer

CELLULOSE DEMAND



#### THE FUTURE OF RAYONIER

An adequate supply of raw material for all Rayonier plants is assured. New acquisitions bring timberlands under Rayonier control up to 790,000 acres (an area larger than Rhode Island). With the completion of Rayonier's new plant at Jesup, Georgia, in 1954, Rayonier will represent approximately 50% of U.S. chemical cellulose capacity, 32% of North American and 20% of world capacity. Since 1945 Rayonier has committed more than \$80,000,000 for enlargement, replacement or improvement. Thus for the future, as in the past, Rayonier represents the largest, most experienced, most dependable available source of all types of chemical cellulose.



#### A TWENTY-YEAR HEAD START

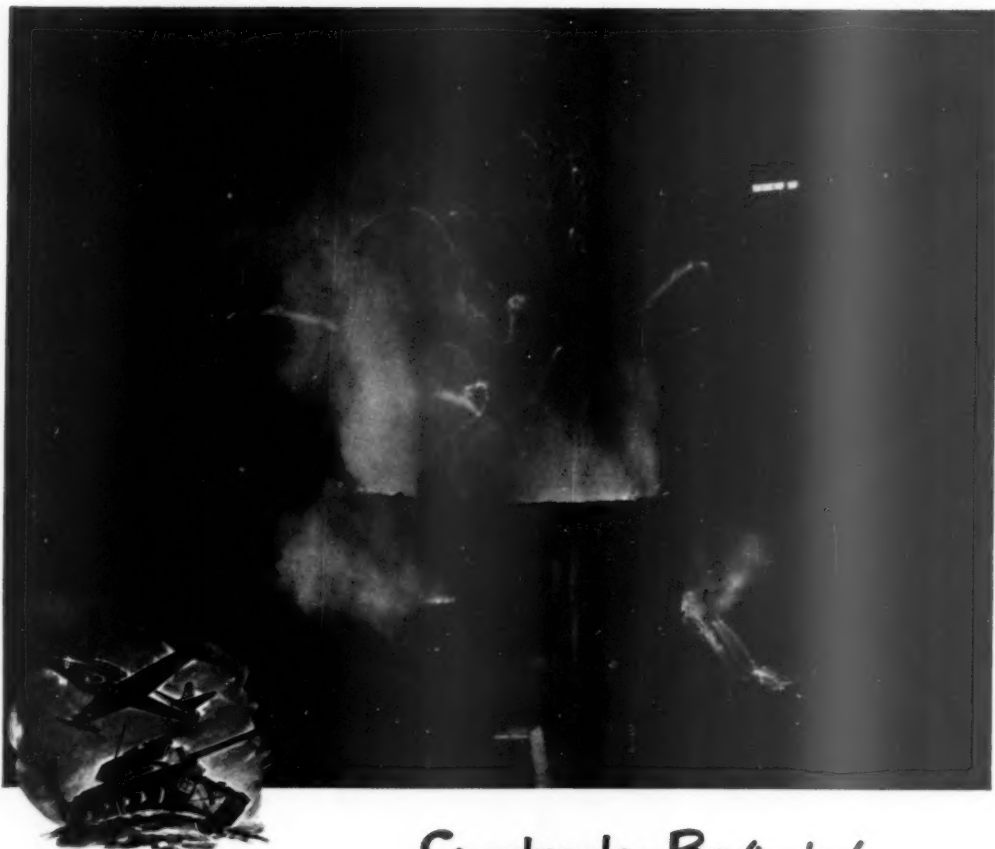
Rayonier expects to maintain its commanding leadership in the chemical cellulose field. Backed by a million dollar annual research and technical budget and equipped with the most modern tools and facilities, Rayonier's team of distinguished scientists has a twenty-year head start. The Rayonier technical and supervisory staff is trained and experienced. Rayonier processes are continually being improved. Rayonier plants are modern and efficient, strategically located to meet both domestic and foreign demand. They are large plants, providing work for over 4,000 workers, able to meet all future market conditions. Rayonier is ready . . . ready, willing and able.

Who is Rayonier?  
What do they make?  
Who uses it?

**RAYONIER**  
INCORPORATED

*cellulose chemistry*

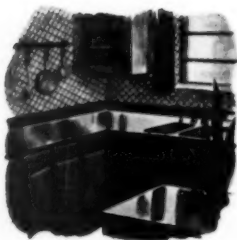
Executive and General Sales Offices:  
161 East 42nd Street, New York 17, N. Y.



## Spectacular Beginning of a SPECTACULAR STEEL



Special  
Steels  
for  
Armament  
for  
Industry  
for the  
Home



An electric furnace puts on a terrific show when we drop in a charge (as above) but it's only indicative of the great performance the steel will give later in service. For these are the high-alloy steels, stars of the metal world . . . the steels that give you so much more than they cost in resisting corrosion, heat, wear or great stress—or in providing special electrical properties. • They can help you cut costs, improve quality, or add sales appeal. Let's get together on it. *Allegheny Ludlum Steel Corporation, Oliver Bldg., Pittsburgh 22, Pa.*

W&D 4149

PIONEERING on the Horizons of Steel  
**Allegheny Ludlum**



**"... too little sleep and too much speech-making ..."**

**CAMPAIGN SPECIAL** starts on p. 78

line through Woonsocket to Worcester.

• **Repairs**—Then Kelly found a new batch of troubles. Stops at Manchester, N. H., Lowell and Lawrence, Mass., the next morning again put the train behind schedule. When the Special arrived in Boston at noon, yardmen discovered the Eisenhower private car had a broken spring.

This time Kelly had some time to spare for repairs. Ike's party was to fly from Boston to New York, return to the train the next day at Hartford. There was ample time to get the private car into the repair yards. Trouble was, Mrs. Eisenhower and her mother were still aboard the private car. Discreetly, without telling the whys and wherefores, Kelly had the women escorted to the comfort of Sen. Frank Carlson's drawing room two cars forward so the ailing car could be uncoupled.

• **On the Spot**—The transportation director has to see that the train stops where it is supposed to stop—right at the depot or siding where the welcoming committee is waiting at a marked-off place. You don't make friends of politicians who have to chase you down 200 ft. of track.

Transportation men also see to it that telephone lines are hooked on at prearranged stops. He sends a directive calling for so many lines to be connected with phones in various cars.

• **Mythology**—It's no surprise that an institution such as a campaign special becomes a source of myth and folklore that just isn't true. Examples:

Except for the Presidential Special, campaign trains are not guided by a pilot engine and tender. The Secret Service requires a pilot for the Presidential, sometimes using a regularly scheduled express for a long stretch, an engine and tender for shorter ones.

Switches are not spiked to assure a clear track for the Special. Today's automatic switch equipment is too expensive and too accurate to get such treatment.

The news reporters and photographers aboard don't ride as the guests of the candidate. They pay regular Pullman fare for the mileage they are aboard.

• **A Grind**—The campaign train is very much like a political convention on wheels. The people aboard seldom eat right, get too little sleep, and listen to what adds up, after 12 weeks, to too much speech-making.

But the objective is votes; and no candidate is going to give up whistle-stopping for a long time to come.



**IDEAS**  
DEVELOPED HERE

**may help your SALES  
... cut your COSTS**

You can't ignore the fact that today's competition calls for the utmost selling power in your package. Yet close profit margins compel you to make every possible economy in packaging costs.

Here at PACKAGE you'll find the experience and modern know-how that may help you achieve both of these objectives.

Working closely with leading package goods manufacturers, our engineers are constantly coming up with ideas that lead to new and better types of packaging—as well as more efficient, cost-cutting machines. The result is that today our machines wrap *more different products* and a *greater volume* of goods than any other make of machines.

Why not put this unparalleled experience to work for your company? We'll be glad to study your package and production methods with you and give you the benefit of our recommendations.

*Write or phone our nearest office*

**PACKAGE MACHINERY COMPANY • Springfield, Massachusetts**

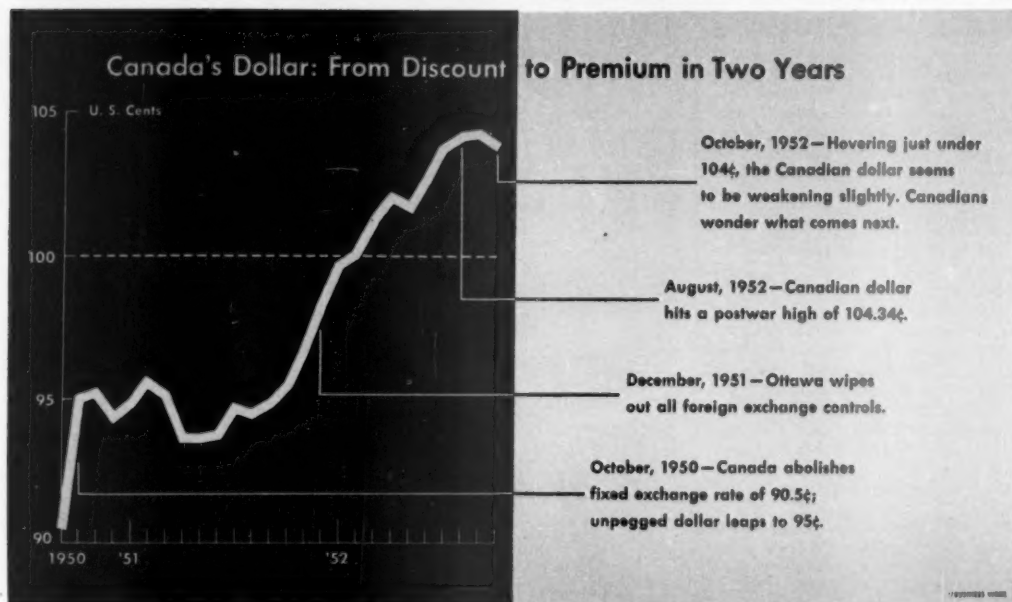
NEW YORK	CHICAGO	BOSTON	CLEVELAND	ATLANTA
DALLAS	DENVER	LOS ANGELES	SAN FRANCISCO	SEATTLE
	VANCOUVER, WASH.	TORONTO	MEXICO, D.F.	



**PACKAGES THAT SELL  
PRODUCED ON  
MACHINES THAT SAVE**

**PACKAGE MACHINERY COMPANY**  
Over a Half Billion Packages per day are wrapped on our Machines.

# CANADA



## Dominion's Dollar: Is It Too Strong?

When the Canadian dollar went to a premium over the U.S. dollar last March, most Canadians cheered. Many of them are still cheering. But others—especially businessmen—are beginning to realize that having one of the world's strongest currencies is a mixed blessing.

In fact, you begin to hear suggestions from a number of Canadians that Ottawa take some action to ease the dollar back towards par with U.S. currency. So far, the government hasn't done anything—nor is it likely to in the near future. If Canada's dollar does drop, it will be external factors—like a slowdown in the flow of U.S. investment dollars—that do the deed.

• **Cheaper Living**—You can't sell the Canadian consumer on the idea of pruning the premium. He likes things the way they are. Many items that enter into the cost-of-living—grapefruit, oranges, bananas, fresh vegetables during the winter, and coal—are imported from the U.S. The premium on the Canadian dollar pushes the prices of these products down. That has helped stabilize living costs.

Just two weeks ago the major Canadian oil companies shaved the price of gasoline by  $\frac{1}{4}$ ¢ a gal. and fuel oil by  $\frac{1}{4}$ ¢. That saving to Canadian motorists and homeowners is a direct result of their

dollar's robust health. Cost of petroleum products is determined by the price of crude oil imported from the U.S.; in terms of Canadian dollars the price has dropped.

Canadians visiting the U.S. are the happiest of all. They have been accustomed to being nicked 5% to 15% on their money by U.S. shopkeepers, unscrupulous and otherwise. They get a big bang out of seeing the shoe on the other foot. Not long ago, a Buffalo restaurant advertised that it would pay a 7% premium for Canadian funds.

• **Exporters Worry**—While tourists are enjoying their innings, Canadian exporters are glum. The world price of many of Canada's principal exports is fixed in U.S. dollars: wheat and coarse grains, meat, nickel, copper, lead, zinc, gold, newsprint, pulp, aluminum. When U.S. dollars are converted into Canadian, the exporter gets less. And he must convert because his costs are incurred in his own currency.

The gold-mining industry, already sickly because of rising costs and a fixed price for gold, is one of the hardest hit. Now, instead of getting \$35 an oz. (or even as much as \$38.50 when the Canadian dollar was discounted) gold miners only get \$33.75 (U.S.). Ten years ago there were 140 producing

gold mines in Canada; now there are only 60 and plenty of these would have to close down were Ottawa not paying a subsidy. Just two weeks ago, Lake Shore Mines, a big Ontario producer, passed a dividend for the first time since it started payments in 1918.

The wheat farmer on the prairies gets hurt, too. The price of Canadian wheat sold under the International Wheat Agreement is pegged at \$1.80 a bu. (U.S.). That's only \$1.74 (Canadian). Losing 6¢ a bu. on a 650-million bu. crop is a harsh blow to wheatgrowers.

A number of Canadian manufacturers, including the newsprint outfit, will show lower earnings this year due to the depreciation of the U.S. dollar. Abitibi Power & Paper Co. reported six months' earnings of 97¢ a share against \$1.25 a share in the same period last year.

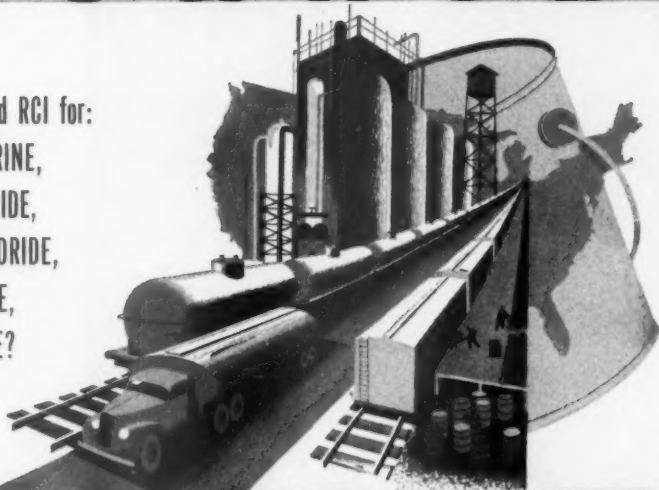
• **Still Rising**—Despite these special difficulties, the premium hasn't discouraged Canadian exports as a whole. For the nine months ended Sept. 30, Canadian exports jumped \$362-million over nine months in 1951. The fact that the world price of so many Canadian exports is fixed in U.S. dollars probably explains why the export trade has continued to surge ahead.

Foreign traders aren't the only people



# REICHOLD

Have You Checked RCI for:  
PHENOL, GLYCERINE,  
MALEIC ANHYDRIDE,  
PHTHALIC ANHYDRIDE,  
SODIUM SULFATE,  
SODIUM SULFITE?



# CHEMICALS

● In order to assure a steady supply of top quality raw materials to its many plants all over the world, Reichhold has developed its own facilities for producing the basic chemicals listed above. Thanks to modern production methods and equipment plus a far-sighted expansion program, Reichhold has become a major producer of these vital chemicals . . . frequently able to share its production with other industries. If you need phenol, glycerine, maleic anhydride, phthalic anhydride, sodium sulfate or sodium sulfite, keep in touch with Reichhold. For current availabilities, write, wire or phone the Chemical Department.

## REICHOLD CHEMICALS, INCORPORATED

630 Fifth Avenue, New York 20, New York



### Creative Chemistry...Your Partner in Progress

Plants: Detroit, Mich. • Brooklyn, N.Y. • Elizabeth, N.J. • South San Francisco and Azusa, Calif. • Tuscaloosa, Alabama • Seattle, Wash. • Chicago, Illinois • Charlotte, N.C. • Jacksonville, Florida • Liverpool, England • Paris, France • Sydney, Australia • Hamburg, Germany • Naples, Italy • East London, South Africa • Barcelona, Spain • Mönchengladbach, Germany • Buenos Aires, Argentina • São Paulo, Brazil • Sassenheim and Apeldoorn, Holland • Toronto, Port Moody, and Montreal, Canada • Osaka, Japan • Gillingham, Sweden • Zurich, Switzerland



### *Why do you have a letter retyped?*

Because you know how much a letter means. As an ambassador of your company it must give the right impression. And to do so, it must be right to the smallest detail.

Just as your letters reflect your company, so do the greetings you send to your business friends at Christmas. And the quality that is inherent in every Hallmark Card can now be an ambassador for your company.

Simply visit the store that features Hallmark Cards. Ask to see the Hallmark Album for Men containing Christmas cards designed especially for men and business firms. In a matter of minutes you can select the card you want imprinted with your name. Select from a wide variety of Christmas cards designed with dignity and good taste—confident in the knowledge that to everyone, everywhere, the Hallmark on the back of a card means, "You cared enough to send the very best!"



*"When you care enough to send the very best"*

troubled by the booming Canadian dollar. Some manufacturers face increased competition from imported products, now that prices are lower. Textiles are a case in point, with stiff competition coming from British goods.

• **Politics**—So far, Ottawa hasn't given any indication that it will act on pleas to help bring the dollar back to par. No doubt it would like to ease the problem facing exporters. But, with people already talking about a general election next year, the government won't want to take any steps which might increase living costs—even slightly.

Among the ideas thrown out has been that Canada should buy U.S. short-term bonds—throwing Canadian dollars onto the U.S. market—until the exchange rate dropped to whatever point was considered desirable (some economists think a 1% or 2% premium would be about right). That would mean a reversal of recent Canadian monetary policy. The only way that purchase of U.S. bonds in the volume needed could be financed, would be through an expansion of Canada's money supply. And that would build up domestic inflationary pressures.

The Bank of Canada has for the most part stayed out of the exchange market. Ottawa's announced policy is not to try to maintain a stipulated parity, but rather to brake extreme swings. Meantime, the Bank of Canada has added steadily to its reserves of U.S. dollars. At the end of September, these totaled a comfortable \$1.86-billion, up \$78-million this year. That was more than the dollar reserves of the entire sterling area.

• **Incoming Capital**—One reason the Canadian authorities are reluctant to monkey with the exchange rate is that they have no idea how long the present situation will last. The big factor in the present strength of the Canadian dollar is incoming investment funds from the U.S. and Western Europe. If the investment flow slows down, the Canadian dollar won't need any artificial help to get back down to parity.

Some exchange experts think that the U.S. investor has been carried away by his enthusiasm for Canada; they warn that that enthusiasm could wane without much notice. Traders, especially, are a fickle breed. If anything happened to slow up investment—if only a trend to profit-taking—the Canadian dollar would drop.

There are straws in the wind. Occasional Wall Streeters feel some of the glitter is already fading from Canadian securities. Canadian financing through new security issues in the U.S. has been lower this year than last. Up to Oct. 15, new Canadian issues sold in the U.S. totaled only \$230-million compared with \$304-million in the same period last year.



## ***Conference room in the sky***

America is a nation on wings and wheels. We can't wait for the full-fledged formalities of the past—when conferences came complete with agenda, protocol and secretaries—to solve our problems. We take them with us wherever we go. Often decisions are put into action before the train reaches its station or the plane touches ground.

Planes, like most things that move these days—whether by wheel on the ground or by prop through air or water—make good use of the unique qualities of Berylco beryllium copper. In fact, the effective employment of such advanced materials is one reason for America's outstanding record of achievement in commercial and military aviation.

Berylco is employed, for instance, in valve guides, fuel injector parts, pump couplings. It increases

the sensitivity, and therefore the accuracy, of instruments. It makes strong, vibration-proof electrical connectors.

No single property accounts for the usefulness of beryllium copper. It is an extremely versatile alloy, offering many combinations of desirable qualities. Because of its high conductivity, it is unexcelled for heavy electrical equipment. Because of its great strength, it makes long-lasting bearings, gears, valve parts.

Berylco belongs in your future, too. We invite you to take advantage of the technical knowledge and skill of the world's largest producer of beryllium copper. We will be glad to work hand in hand with you on your problems.



**TOMORROW'S  
PRODUCTS  
ARE PLANNED  
TODAY—  
WITH  
BERYLCO  
BERYLLIUM  
COPPER**

## **THE BERYLLIUM CORPORATION**

READING, PENNSYLVANIA

OFFICES IN PRINCIPAL CITIES AND TRADE CENTERS



Drill rig arrives . . . . . self-contained motor . . .

## Canada Finds More Gas,



FORT ST. JOHN, B. C., once a peaceful farm center 500 mi. from Edmonton, is now western anchor of Peace River gas area. Population of 600 has doubled, as seismic crews (at left) roam millions of acres exploding dynamite in search of gas-bearing structures.



... hoists tower into place ... .. ready for action as ...

## May Pipe It to Northwest

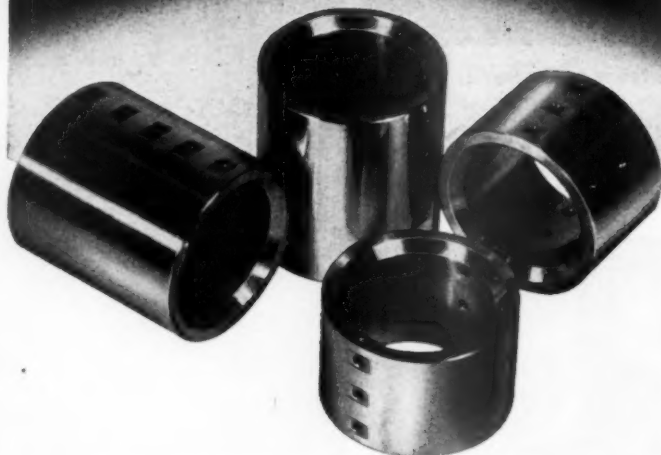
(Story continues on p. 96)



**PULLING PIPE** at a Pacific Petroleum's gas rig gives geologists core section of earth a mile below. A gas well in the area can cost anywhere from \$50,000 to \$100,000. At right, engineers check pressure and volume of completed Pacific Fort St. John #7.



# CLEAN Design..



Bunting Cast Bronze Bearings lend themselves readily to simple, clean design—only a straight shaft, a bearing of finely finished bearing bronze, a housing surrounding it and the oil film to insulate against noise and wear.

Bunting Bronze Bearings are available in either of two ways,—

- (a) In standard dimensions and of S.A.E. 660 (Bunting #72) alloy. These are carried in stock by hundreds of Bunting Distributors.
- (b) In special dimensions to your blueprint and in any alloy which you select or we recommend for your particular need. These we make to your order.

Let Bunting engineers work with you on your bearing problems.

The Bunting Brass & Bronze Company, 720 Spencer St., Toledo 1, Ohio • Branches in Principal Cities.

# Bunting

BRONZE BEARINGS • BUSHINGS • PRECISION BRONZE BARS

**"... Peace River gas field has become a lot less remote ..."**

CANADIAN GAS starts on pp. 94-95

For three years, a fast-moving Calgary oilman named Frank McMahon has been running hard in the race to pipe Canadian natural gas to the fuel-hungry U.S. Pacific Northwest. But until this month, his chance of winning seemed as remote as his gas field in the Peace River country, straddling the Alberta-British Columbia border 500 mi. northwest of Edmonton (pictures, page 94).

Now Peace River has become a lot less remote. Three weeks ago Canada's Board of Transport Commissioners gave a final blessing to McMahon's \$100-million-plus pipeline scheme. And it assessed Peace River's gas reserves at a comfortable 2.5-trillion cu. ft., eight times the figure given last spring. That passed the ball to the U.S. Federal Power Commission. FPC has been studying a motion to dismiss McMahon's bid on grounds of insufficient reserves (BW—Jul. 12 '52, p86). Now, Ottawa's latest estimate may mean the lifting of the last legal bar to bringing Canadian natural gas into the U.S.

• **Optimism**—Meantime, McMahon is optimistic. "If FPC approves," he says, "we'll start laying pipe next spring. With any luck we'll have gas in Portland by midsummer, 1954."

When he talks of "we," McMahon means the Westcoast Transmission Co. Ltd. and its U.S. affiliate of the same name. Westcoast is a coalition of well-heeled U.S. and Canadian independent oil companies, organized by McMahon in 1949. Besides being president of Westcoast, McMahon is head of Pacific Petroleum Ltd. and Peace River Natural Gas Co. Ltd. Last year, McMahon's Pacific Pete brought in British Columbia's first oil well; earlier McMahon developed a gas field in Alberta and then wangled the province's first permit to export gas—through a 17½-mi. pipeline into tiny Dawson Creek, B.C. McMahon figured that 17½ mi. was the first step to Vancouver, Seattle, and Portland.

• **Remote**—They seemed far away at the time. Gas men were more interested in the richer and well-publicized fields of southern Alberta, like Pincher Creek. But provincial authorities wanted to hang on to their vast southern reserves as a come-on to industry seeking cheap power. Last April, the province ruled that Alberta's only surplus gas was the 300-billion cu. ft. or so in the Peace River area, a thin three year's supply for the United

# Be ready with Frigidaire Air Conditioning before "Summer Drag" hits next year!

Production—administrative efficiency—sales, too, are given a hard time by hot, humid spring and summer weather. Frigidaire Self-Contained Air Conditioners give you the answer to this problem—at a surprisingly reasonable cost. Now's the time to get the facts—to install Frigidaire air conditioning where it's needed—to be ready when next summer blasts a hot, sticky path into your plant, office or store.

**Attractively designed** to complement lobbies, offices or reception rooms, "ruggedly built to stand up" in manufacturing areas, these efficient units do wonderful things to air at very low cost—cool it, filter it, refresh and circulate it—dehumidify it, make it pleasantly, healthfully comfortable.

**Available now** in three compact sizes, Frigidaire Self-Contained Air Conditioners may be installed singly or in multiple to meet a wide range of requirements. They occupy minimum valuable floor and wall space, and have very low noise level. Installation is simple and inexpensive, since the units may be located directly in the conditioned space, without elaborate air duct systems.

**Manufacturers, executives and businessmen everywhere** call Frigidaire air conditioning a profitable investment—point to substantial dividends in the form of increased employee efficiency, less employee turnover and lost time, and increased summer sales.

**Don't wait** for summer to hit! Call your Frigidaire Dealer now for an immediate survey of your air conditioning needs, or write Frigidaire Division of General Motors, Dayton 1, Ohio.



## FRIGIDAIRE

Dependable Air Conditioning and Refrigeration Products  
for Stores, Offices, Institutions and Industrial Plants

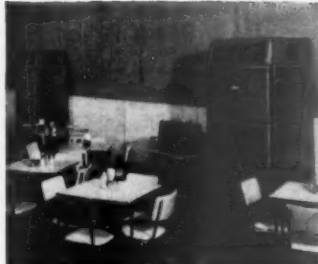
### EASY TO INSTALL IN OFFICE OR PLANT!



**Drafting room**—where Frigidaire Air Conditioning increases efficiency, cuts down employee turnover—prevents smudging of mechanical drawings from perspiration, dust and soot, or excessive dampness.



**Master gauge room**—requires clean, dust-free air, controlled temperatures and humidity. Frigidaire units prevent expansion and contraction of instruments, guard against stain and corrosion.



**Plant cafeterias**—where employee morale and satisfaction jump noticeably when Frigidaire Air Conditioners are installed. Units pay for themselves in good will and efficiency gained.



**Dictate letters that  
get both respect and  
action. Use Nekoosa  
Bond—the eye-appeal  
paper that adds sales-  
appeal to letterheads  
and business forms.**



**Nekoosa BOND**  
**MADE IN U.S.A.**

NEKOOSA-EDWARDS PAPER CO., PORT EDWARDS, WIS.

States and the west coast of Canada.

At that point, McMahon started sprinting. His U.S. pipeline partners, Sunray Oil Corp. and Union Oil Co. of California, helped rush eight drilling rigs up the Alaska Highway, and encouraged other major outfits to come along—all on the prospects of West-coast's pipeline.

• **Doubter**—At least one company, Pacific Northwest Pipeline Corp., thought those prospects were dim. Its plan was to pipe gas to Seattle from the U.S. Southwest; it opposed West-coast's scheme before the FPC last summer on grounds of insufficient reserves.

That argument seems to be crumbling. Ottawa's chief geologist, Dr. George Hume, reports gas reserves in Peace River's 18 fields at well over the 20-year supply Gellert wants as a minimum. Said the conservative Dr. Hume: The Fort St. John zone looks as if it might be "as big or bigger" than anything in southern Alberta.

That's all McMahon wanted to hear. He has gambled \$6-million so far; and since the report came out he has brought in three new wells. He's talking about 60 more next year.

## CANADA BRIEFS

**Happy birthday.** The Toronto Stock Exchange celebrated its 100th anniversary last week. TSE ranks second on the continent to the New York Stock Exchange in number of shares traded and third to the two New York marts in dollar volume—last year \$1-billion.

• **Another pipeline,** 450-mi. long, linking Montreal, Toronto, Ottawa, and Hamilton, opens soon. It was built by Trans-Northern Pipe Line Co., is Canada's longest products pipeline. British American Oil Co., McColl-Frontenac Oil Co., and Shell Oil Co. are joint owners.

• **Canadian American Realities** is a new outfit specializing in sales of Canadian real estate to U.S. investors. Headquarters is in Montreal.

• **New plants:** Frigidaire Co. of Canada has opened its \$11-million plant at Scarborough, near Toronto. . . . Barcam Co. Ltd. has bought a site at Edmonton, plans an \$8-million gas absorption plant there. . . . Steetley of Canada Ltd., affiliated with a British firm, will build a \$2-million rotary kiln plant at Dundas, Ont., to make refractories of dolomite.

• **A \$2.5-million shopping center** will go up in northeast Montreal. Maxwell Cummings & Sons will build it, with a 1,000-ft. frontage and parking room for 1,300 cars.

## TV Too Highbrow

**That's what Canadians think of their new homegrown programs. But advertisers are moving in.**

People in Montreal and Toronto have been viewing their own home-grown television for about two months now. So far, their reaction has been lukewarm. But that's to be expected. The new industry is wrestling with the same problems that faced U.S. television in its infancy—plus a couple of purely Canadian problems (BW—Jun. 7 '52, p172).

In the Toronto area, Canadian video has to compete with the more-experienced broadcasting from Buffalo. In Montreal, it must telecast in both English and French—with French-speaking Canadians complaining about too many English programs, and the English-speaking faction beefing about too much French. Canadian Broadcasting Corp., always in the middle, says the language breakdown is an equitable 50-50.

• **Hockey Programming**—Another complaint: Canadians think CBC is going in too heavily for culture. CBC hopes to correct that. For one thing, Imperial Oil Ltd. is now televising Montreal and Toronto hockey games.

CBC, as a government broadcasting monopoly, naturally will favor made-in-Canada programs. But for the present it's using some U.S. TV fare to provide variety. CBC has signed up for several ABC and DuMont network shows, but negotiations with NBC and CBS are stalemated. A. D. Dunton, CBC chairman, says both of them are asking for too much money.

• **Sales Pick Up**—Advertisers are moving in fast. At first they thought that the rate of \$1,600 an hour in Toronto and \$500 an hour in Montreal was too steep for the size of the audience reached. Now, however, they seem to think they're getting their money's worth since the price, though high, includes everything but cast and props. In fact, this week the Montreal station upped its rate to \$750 an hour.

At present, 30 sponsors have half hour to one hour shows; others have bought spot commercials. Some of the advertisers: Frigidaire, Campbell's Soups, Ford, Westinghouse, British-American Oil, London Life Insurance, Bulova Watch, Consumers Gas.

There will be more signing up as Canada's TV expands. CBC is working on a new station at Ottawa which will tie up with Toronto and Montreal. Next year it plans stations at Vancouver, Winnipeg, possibly Halifax.

---

# BUSINESS IN MOTION

---

## *To our Colleagues in American Business . . .*

Everyone who has to deal with water and steam is concerned with the reduction of corrosion. Power plants, for example, spend large sums annually to treat boiler feed water, and condenser operation is watched carefully. Because of this, the Revere Research Department over a long period of years has studied intensively the causes of corrosion, and how corrosion can be reduced, as it usually can.

Recently the Revere Research Department was asked to investigate the failure of Admiralty metal tubes after some five years of use in a condenser. The user felt such tubes should last longer under average conditions. Samples from failed tubes were sent to the laboratory, and subjected to physical, metallurgical, chemical and microscopic tests. It was found that the outer surfaces were pitted, thinned, grooved and cracked. In some places corrosion had completely destroyed the tube wall. Inside, there was but little pitting of the underlying metal. Thus, it was evident that the destructive process took place on the outside, or steam side of the tube.

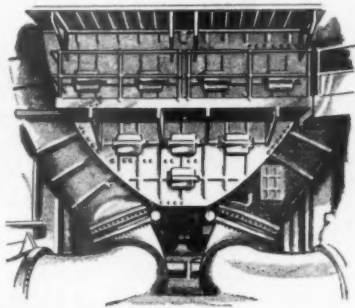
The chemical analysis of the outside scale was evidence that the excessive corrosion was due to carbon dioxide and other non-condensable gases carried along with the steam. It is not unusual to have these and other corrodents present in damaging amounts in the air-ejector system, whereas they are not injurious elsewhere.

Photomicrographs were then taken of sections through the cracks. It was found that the cracks originated in corrosion pits on the outside of the tube, and progressed inward. In doing so they broke across the grains of the metal rather than following the

grain boundaries. This transgranular pattern showed that the pits created stress-concentration points of weakness. Other characteristics of the microstructure confirmed that failure was due to a combination of corrosion and fatigue. The conclusion was, of course, that not only were there corrodents in the steam, but that in addition the tubes were subject to vibration.

Given these facts, the remedies were not difficult. The copper-base tube alloy that generally possesses the greatest resistance to the non-condensable gases responsible for such corrosion is 5% aluminum bronze. This is somewhat more expensive per pound than Admiralty metal, but in this case when balanced against the expected extension of life, the ultimate cost became favorable. It was also recommended that steps be taken to reduce tube vibration materially by installing a baffle in the steam inlet. Finally, it was pointed out that many operators find it good practice to discharge the after-condenser drain to the sewer, instead of returning it to the system, thus substantially reducing the amount of carbon dioxide, ammonia and other corrodents in the system.

This report provides a typical example of the thoroughness with which the Revere Research Department attacks the problems that are brought to it. If you have questions concerning the selection, fabrication, or service of Revere Metals, get in touch with the nearest Revere Sales Office, through which the experience of our Technical Advisors, and if necessary, of Research, can be made available to you. And do not forget that other suppliers to industries of all kinds also operate laboratories upon whose knowledge you can call. It will pay you to do so.



---

### REVERE COPPER AND BRASS INCORPORATED

*Founded by Paul Revere in 1801*

Executive Offices: 230 Park Avenue, New York 17, N. Y.

SEE REVERE'S "MEET THE PRESS" ON NBC TELEVISION EVERY SUNDAY

---



Another Success Story For  
Plastic Surfaced Plywood

### "Lowest Cost."

PLASTIC surfaced Douglas fir plywood is used for all types of traffic and directional signs manufactured by Traffic Control Signs Co., Tacoma, Wash. Owner Paul Lemcke says: "The material won't chip, rust, crack or bend. It insures a smoother paint surface, provides necessary strength, durability and light weight—all at lowest cost. Thousands of these signs are giving excellent service."

Plastic surfaced plywood combines the advantages of both plastic and Douglas fir plywood. Get full information about the many industrial and construction uses for this unique panel material. Write Dept. 4111A, Douglas Fir Plywood Association, Tacoma 2, Washington.

## Talide

(TUNGSTEN CARBIDE)

TRIPLES  
YOUR PRODUCTION



DIES



BLADES



BUSHINGS

Millions of small metal particles, finer than face powder, are fused together under terrific heat and pressure to make TALIDE the world's hardest metal.

Many times more durable than steel, it adds years of life to the wearing edges of tools, dies, machinery and equipment.

Hard as a diamond and almost indestructible, it triples output per man and per machine.

Write for Catalog SO-G.



METAL CARBIDES CORPORATION

YOUNGSTOWN 7, OHIO  
SINTERED CARBIDES • HOT PRESSED CARBIDES

BAR STOCK

TOOLS

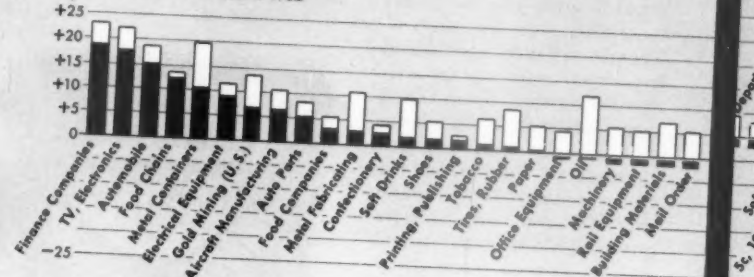
ROLLS

## FINANCE

Standard & Poor's 50 Industrials, 1951 Close = 100



Percent Gain or Loss in 1952



...and while only  
18 stock groups show gains...

## Bulls, Bears Both Claim

What's happened to that bull market?

Everyone is asking. The slide that started last August, and which has cut values sharply at times, is getting monotonous. But anyone expecting a fine, pat answer from Wall Street may as well look elsewhere.

If, like a horse race, it takes differences of opinion to make a stock market, this should be one of the best. Disagreement there is, aplenty. But willingness to back opinions with money hasn't been conspicuous; trading has been active only by fits and starts, in those moments when prices were hardest pressed.

• Just Wait—The bulls, as always, will not easily be driven to slaughter. "Just

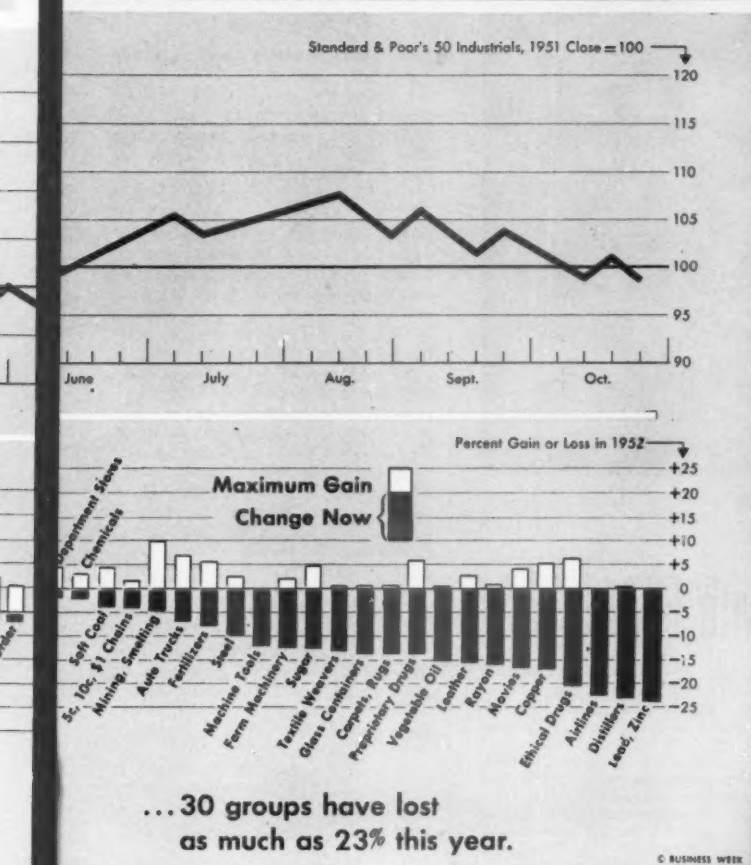
a breathing spell," they say. "Wait until after election. Then the market's built-in booster-institutional buying will send prices onward and upward to new postwar highs."

The bears are just as unequivocal: "The 1949-52 bull market is behind us. Watch the months to come; you'll find that early-August high was not just the top of a traditional summer rally but the turning point."

Wall Street's bulls fall back on market lore to support their thesis that it's far too early to call in the undertaker.

There is nothing new about reactionary periods during bull markets. They are just as commonplace as short-lived rallies during bear markets. Rarely does either of them mean an ominous





## Market's Going Their Way

change in the underlying price trend.

• **Precedents**—What's more, the bulls say, these setbacks aren't the first in the 1949-1952 advance. Last year prices broke quite sharply on two occasions. And there were two bad spells before this year's rally, but they didn't keep prices from reaching their postwar high in August. Why, they ask, should things be different this time?

The bulls also point to the strong technical position of the market.

• **Present prices of stocks in the Dow-Jones industrial average are only 11 times estimated 1952 earnings. In 1929 this ratio hit 19-1. Before the 1937 bull market fell apart it was around 18-1; in 1946 it was close to 21-1.**

• These same stocks now afford a yield of 5.6%. Six years ago it was down to 3.2%; at the peak of the 1937 market it was 3.6%; in the fall of 1929, 3.3%. Current yields on stocks are thus 1.8 times those available on blue chip corporate bonds. This compares with 1.3 times in 1946, 1.1 times in 1937. It's considerably below the 1929 bond return.

• Unlike its predecessors, this upswing has been primarily the result of investment buying. The leaders have been the shares of strong, basically sound enterprises. At no time have the low-priced speculative shares led the parade.

• Brokerage houses aren't loaded with lightly margined, highly pyramided

## Tailor-Made Conveyor Systems



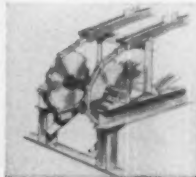
**Increase Your Productivity While Lowering Costs With Webb Conveyors . . . Engineered To Meet Every Conceivable Mechanized Conveying Need.**



Chassis Assembly Conveyor with continuous high tee-bars.

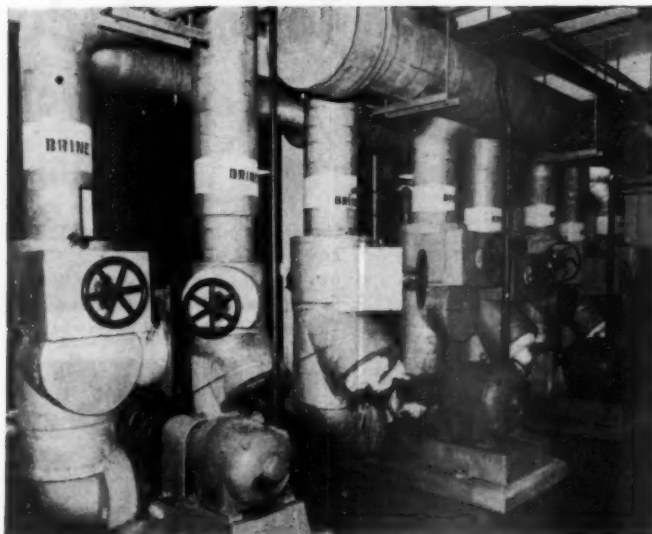
Typical of the versatility of Webb Conveying Systems are the chassis assembly conveyors in operation at one of the largest and most mechanized automobile plants in Detroit. For 25 years Webb has materially aided this manufacturer in maintaining production schedules and cost controls with installations such as these chassis assembly conveyors, which permit uninterrupted assembly to the chassis of rear axle, wheels, motor, gas tank and transmission.

Put to better use your Overhead, Floor or Underfloor Space . . . Let Webb Engineers Solve the Challenges Presented by your Most Complicated Materials Handling Problems.



Head End Section of Chassis Assembly Conveyor (notched tee-bar type).





**They couldn't take a chance  
with these brine lines —**

**...so they insulated with FOAMGLAS!**

● Condensation could make short work of ordinary insulation on these 0°F. brine lines. So, to eliminate the fuss and high cost of replacing ruined insulation, American Cyanamid Company chose FOAMGLAS for the indoor brine lines and coolers shown here.

Even without a protective coating of any kind, FOAMGLAS resists water and will not transmit vapor under these service conditions. And, since it is a 100% glass product—no organic binders or fillers—FOAMGLAS is unaffected by all ordinary chemicals, it furnishes

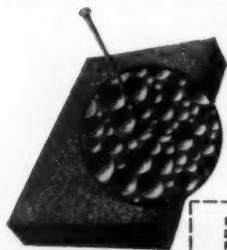
no food for vermin, and it will not burn.

The high insulating efficiency of FOAMGLAS is caused by the unique cellular construction. Every rigid block of FOAMGLAS contains millions of tiny, isolated air cells; each air cell completely surrounded by glass.

In other words, with FOAMGLAS, you have a material that is inert—glass, combined with cellular construction—the most efficient form of insulation.

It's an unbeatable combination of properties if you want an insulation that you can install and forget.

**PITTSBURGH CORNING CORPORATION • PITTSBURGH 22, PA.**



The best glass insulation is cellular glass. The only cellular glass insulation is FOAMGLAS. This unique material is composed of still air, sealed in minute glass cells. It is light weight, incombustible, verminproof. It has unusually high resistance to moisture, chemicals and many other elements that cause insulation to deteriorate.



**FOAMGLAS®**

*the cellular glass insulation*

Pittsburgh Corning Corporation  
Dept. L-112, 307 Fourth Avenue  
Pittsburgh 22, Pa.

Please send me, without obligation, a sample of FOAMGLAS and your FREE booklet on the use of FOAMGLAS for: Normal Temperature Commercial, Industrial and Public Buildings ☐ Refrigerated Structures ☐ Piping and Process Equipment ☐

Name.....

Address.....

City.....

State.....

**"... the bulls conclude that  
'things are different now'  
..."**

**BULL MARKET starts on p. 100**

accounts—accounts that have to be thrown overboard on any sharp spill. Most people own stocks outright these days. And they've bought them for long-term investment holding.

• Stock has been finding its way into the hands of the professional money managers as in no previous bull market. Pension funds, insurance companies, trustees, investment companies have been providing the greatest buying impetus—not the fair-weather traders.

• Long-Term—From all this the bulls conclude that "things are different now." Bull markets are no longer likely to burst as they used to. To be sure, prices will fluctuate; they can't always move upward. But precipitous drops are unlikely with so much stock locked up in the strong boxes of smart money managers for long-term holding. These holdings won't be dumped at the first scare news. Indeed, the bulls argue that, if anything, lower prices may touch off considerable buying by the money managers. Many of the managers have been using "dollar averaging" to build up their portfolios (BW-Oct. 18 '52, p. 130). This calls for buying best-liked stocks at regular intervals, regardless of price fluctuations. A declining market is ideal for "averaging"—and that should provide a cushion.

• The Other Side—The bears, obviously, don't think that everything is that simple. The chronic bears aren't the only ones with this idea; it's shared right now by plenty of bulls-turned-bearish.

The gloomy group insists that this "breathing spell" isn't that innocuous. Roughly, it has been a series of declines and rallies. Each rally has fallen short of the preceding top; each decline has gone deeper than the previous bottom. Such a formation is no happy sign to most technicians.

They are not so sure either that the greater participation of institutional investors in the market will produce all the results that the bulls now claim. After all, the investment policies of the open-end funds, bank trustees, pension funds, and the like have yet to be tested under fire. For years now, everything has been in their favor marketwise. But will they go right on buying if the going gets really rough later on?

The "pro" money managers, it's true, don't make any hasty off-the-cuff decisions. But they are not hidebound in their thinking either. So it seems dangerous to assume that, because they

## FOR PACKAGING

**HOT MELTS** are sensational new Resyn adhesives. They're tremendously fast. And moisture resistant. In bookbinding, a National HOT MELT covers 16,800 copies of Reader's Digest an hour — with a single adhesive application! HOT MELTS are used up to 350°F. Set instantaneously. Permit immediate trimming, packing and shipping.

**HOT MELTS** for packaging? Gluing impervious surfaces . . . heat-seal coatings . . . grease-proof coatings . . . pre-stenciled adhesive spots? Potential uses for moisture-resistant **HOT MELTS** are practically unlimited.

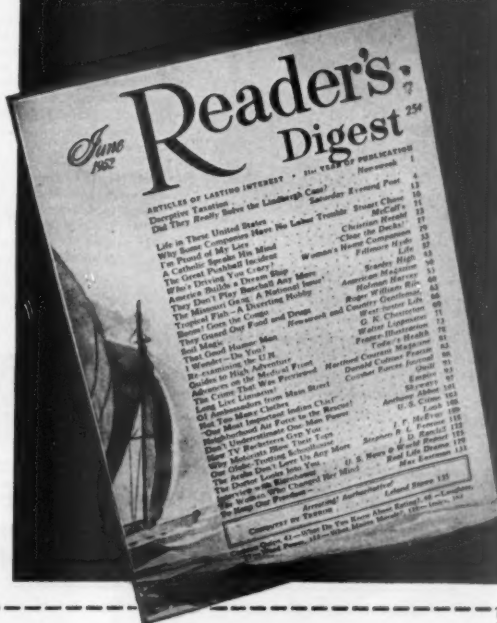
National's HOT MELTS are based on vinyl acetate polymers and copolymers, and on other synthetic resins. Molecular weight of the polymer in a HOT MELT can be varied over a wide range.

If you are interested in the tremendous speed of National's moisture-resistant HOT MELTS, fill in and mail the attached coupon.

**RESYNS®**  
**National**  
**ADHESIVES**



**HOT MELTS COVER  
16,800 READER'S DIGESTS AN HOUR**



**National Adhesives, 270 Madison Ave., New York 16, N. Y.**

**YES!** We're interested in the tremendous speed of National's  
HOT MELTS for \_\_\_\_\_ (application).

Name \_\_\_\_\_ Title \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_



Yesterday, this important new material, synthesized from sand by molecular engineering, was a laboratory curiosity. Today, COHRLASTIC fabrics by virtue of their high resistance to extreme temperatures and superior dielectric strength, are specified for gaskets, diaphragms, bellows, boiler seals, expansion joints, conveyor belts, electric insulation. They are also resistant to mild alkalis, mild non-oxidizing acids, most salts, mineral oils, oxygenated solvents, air and water.

COHRLASTIC fabrics are made by an exclusive process of coating silicone rubber to Fiberglas and Orlon. They come in rolls 36" wide and various thicknesses and can be readily die-cut for gaskets or cemented to make irregular shapes, bellows and seals.

Write for samples and data sheets

**COHRLASTIC**

415 East St. New Haven, Conn.

PRODUCT OF THE  
**Connecticut**  
HARD RUBBER COMPANY

## APPRECIATED by EVERY Salesman • Business Man • Production Man "PRODUCTION GRAPH CALENDAR"

A VALUABLE MANAGEMENT AID—Will tell you the date and record day-by-day gains and losses against quotas or monthly comparatives. At a glance information. Large note space for memos. Ideal for sales, production and administrative managers. An excellent dealer management aid—simple and easy to use. Size 20 x 30. Price \$2.85 for a full year (1953) control pad. Postpaid.

ORDER FROM **THORNTON COMPANY** 1205 Spring St. N.W.  
Atlanta, Georgia

You advertise in Business Week when you want to influence management men

"... growing doubts about operating rates and profit levels of business generally ..."

BULL MARKET starts on p. 100

have been buyers to date, they will continue to be stock buyers if really dark clouds began to build up on the economic horizon.

Such an event might start them switching out of some of their stock holdings still showing a profit into more "defensive" securities, such as bonds.

For some time the 1949-1952 bull market has not been so strong as many bulls like to claim. Despite fanfare over postwar highs set by the indexes last year, actually one out of three issues traded on the Big Board worked lower during 1951. This year the trend has been even more pronounced. Statisticians point out that at least 60% of all Big Board issues are now selling below their 1951 close—although you might not notice this if you judged the market solely by the indexes. Take a look at the 1952 performance chart on individual stock groups (page 100). Or run over the stock tables yourself. You'll have no trouble in making up a long list of hefty individual losses (BW-Oct. 18 '52, p. 146). And you will see why many stockholders are wondering if the bulls' vaunted "floor" under prices isn't very rubbery.

• **Profits**—This seepage of confidence is due to growing doubts about operating rates and profit levels of business generally. There are other signs of uneasiness. Take a look at what has been happening to prices of basic raw materials (page 112).

The bears claim that the growing uneasiness knocks the props right out from under the bulls' chief argument. It's looking backward, not ahead, to lay such stress on the low price-earnings ratios and the attractive yields of the D-J industrials.

Most shares, especially during uncertain times like these, are bought mainly on the basis of what earnings and dividends are likely to be in the months ahead.

Only time will tell whether all this means that the 1949-1952 bull market, like the gentleman in Gracie Fields' song, "is dead but just won't lay down." But one thing does seem certain: As long as today's cautious thinking continues, it is too much to expect that prices will show much vitality. Worries over the future, as strong as those today, have never been fuel for the red-hot optimism needed to keep a bull market under full steam.

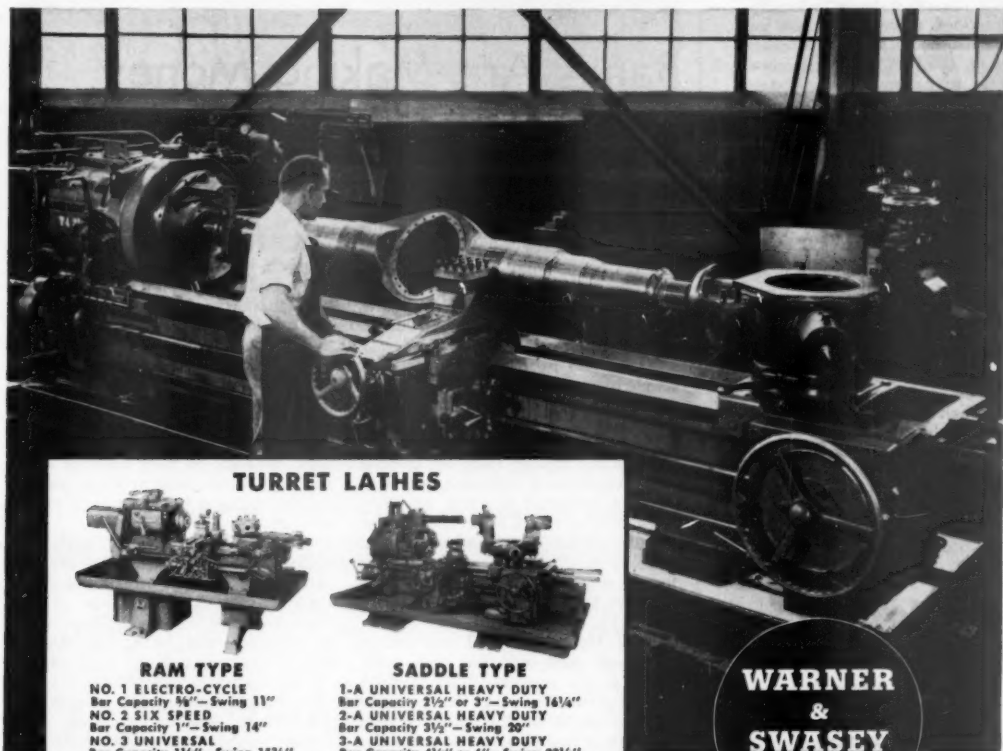
# "KING SIZE" or "REGULAR"

**WARNER & SWASEY  
OFFERS BOTH**

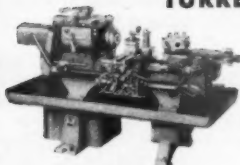
● This Warner & Swasey in the plant of a large road machinery builder is a good example of what we mean when we say Warner & Swasey Turret Lathes are built in sizes and capacities to handle all sorts of jobs. This machine, a 4-A Universal Heavy Duty Saddle Type Turret Lathe, has a bed six feet longer than standard in order to turn the "king size" rear axle housings used in the giant roadbuilding machinery. And tolerances of .001" are held on these large pieces.

When you buy a Warner & Swasey—whether it's to handle the  $\frac{5}{8}$ " bar capacity work of the No. 1 E-C, or jobs requiring the 12" bar capacity of the big 4-A—you buy a machine with an industry-wide reputation for ruggedness and extreme precision. It's a machine you can count on for high productivity, low upkeep, ease of operation, and dependability in holding its built-in accuracy for many years ahead.

So whenever you have a turning problem, call in your nearest Warner & Swasey Field Representative. He'll work with you and recommend the right machine for your range of work.

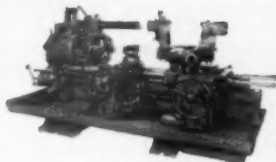


## TURRET LATHES



### RAM TYPE

NO. 1 ELECTRO-CYCLE  
Bar Capacity  $\frac{5}{8}$ "—Swing 11"  
NO. 2 SIX SPEED  
Bar Capacity 1"—Swing 14"  
NO. 3 UNIVERSAL  
Bar Capacity  $1\frac{1}{2}$ "—Swing 15 $\frac{1}{2}$ "  
NO. 4 UNIVERSAL  
Bar Capacity 2"—Swing 18 $\frac{1}{2}$ "  
NO. 5 UNIVERSAL  
Bar Capacity  $2\frac{1}{2}$ "—Swing 20"



### SADDLE TYPE

1-A UNIVERSAL HEAVY DUTY  
Bar Capacity  $2\frac{1}{2}$ " or 3"—Swing 16 $\frac{1}{4}$ "  
2-A UNIVERSAL HEAVY DUTY  
Bar Capacity  $3\frac{1}{2}$ "—Swing 20"  
3-A UNIVERSAL HEAVY DUTY  
Bar Capacity 4 $\frac{1}{2}$ " or 6"—Swing 23 $\frac{1}{2}$ "  
4-A UNIVERSAL HEAVY DUTY  
Bar Capacity 8", 9" or 12"—Swing 28 $\frac{1}{4}$ "

**WARNER  
&  
SWASEY**

*Cleveland*

YOU CAN PRODUCE IT BETTER, FASTER, FOR LESS WITH WARNER & SWASEY MACHINE TOOLS, TEXTILE MACHINERY, CONSTRUCTION MACHINERY



## Correct—without question...

when you use  
your  
photocopy  
machine



There's never any question about the authenticity or accuracy of a photocopy. Every detail of the original—facts, figures, signatures—is reproduced with photographic accuracy and completeness.

On the other hand, manually transcribed records give you no such assurance. AND—in 9 cases out of 10—they're much more costly to prepare. It will pay you to double-check the paper-work routines of all departments with these thoughts in mind.

For the best  
photocopies, use  
Kodagraph  
Contact Paper

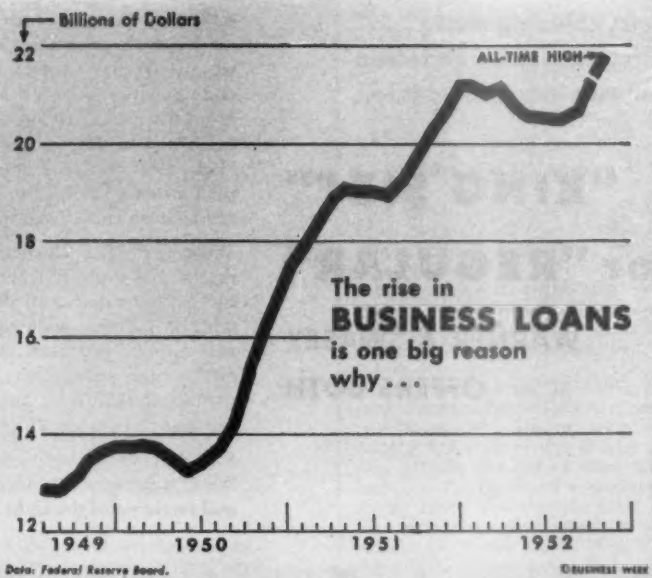
This new paper is made by Kodak for use in all types of contact photocopiers. It reproduces all documents in dense photographic blacks, clean whites... with new sparkle and legibility. And it's easier, more economical to use—no more split-second timing or trial-and-error testing. Order it... and see for yourself.

### Kodagraph Contact Paper

"THE BIG NEW PLUS"  
IN THE OFFICE COPY FIELD

EASTMAN KODAK COMPANY  
Industrial Photographic  
Division  
Rochester 4, N. Y.

Kodak



## Banks Are Making Money

Their stocks are increasingly popular with some investors, as their earnings look plumper in relation to industrial companies.

Earnings of industrial companies this year are lower than last year (page 29). But it's an ill wind indeed that cuts everybody's profits. Until lately, very few people realized how much higher the profits of many U.S. banks are going to be this year.

That's one reason why, in the last couple of months, bank stocks have become popular in spite of the general stock market downturn (page 100). Investors, particularly institutional buyers, also are picking them up as good defensive stocks in a possible bear market and potential business recession. They're being talked about in the same breath with bonds and preferred stocks.

The pickup in bank earnings relative to industrial earnings started showing up more than a year ago (BW-Jul.14 '51,p111). The reasons were pretty obvious: Money rates and loan volume were both going up. But even as recently as this summer, it was difficult to appreciate how big the jump in earnings might be this year over 1951—though it was obvious the trend was up (BW-Jul.19'52,p132). For at mid-year, loan volume had been going down and money rates had leveled off.

• **Picture Emerges**—Now that third-quarter statements are in, the picture is clearer. Bank stock analysts esti-

mate that New York City banks will earn anywhere from 15% to 20% more this year than last. The assumption is that conditions won't change much between now and Dec. 31. Banks in other parts of the country will show smaller gains.

• **Delayed Action**—Banks are only now beginning to feel the full effects of trends that have been in the making for a couple of years. Rising money rates have a delayed-action effect on bank earnings. It takes time for loans and investments made at lower rates to run off, releasing funds for more profitable use.

As these lower-yielding assets are shifted into higher-yielding loans and investments, the picture changes. It costs no more to make a loan at 3% than at 2%, so a higher proportion of gross income can be carried through to net operating earnings before taxes.

You see this process at work now.

According to figures compiled by one Wall Street bank stock specialist, gross income of New York City banks rose 39% in the first half of 1952; total expenses rose only 27% over the same 1951 period.

Income taxes took a heavy bite out of the increased earnings. But they left enough to make bank stocks look pretty



You can't see all the quality that's engineered into Sturgis chairs.



## How comfortable should an executive's chair be?

Let's consider this very popular Sturgis chair, the No. 1805 Senior Spring-Rest. The seat has a thick cushion of foam rubber on coil springs. The spring back is thickly cushioned with foam rubber. The armrests are cushioned with foam rubber. Sound luxurious? It *is* luxurious.

But—and here's the business-like point—it's

luxury under control. For here is no chair to loll in. *Relax* in, yes. *Slump* in, no. This is a chair that has been designed and engineered to keep you in your place, to encourage the posture that discourages fatigue. In short, here's a chair that's good for you, *even though it lets you sit in the lap of luxury* at a general admission price.\*

**P.S.** \*Let your Sturgis dealer surprise you with the low price of this Sturgis chair.



## Sturgis chairs are engineered for keeps.

You can't see all the quality that's engineered into a Sturgis chair but it's there in full measure—and because it's there a Sturgis chair is a long term investment in office comfort and efficiency. Today the finest executive, secretarial, clerical, guest and institutional metal chairs are being produced by The Sturgis Posture Chair Company, Sturgis, Michigan.

# Coat METAL on PLASTICS

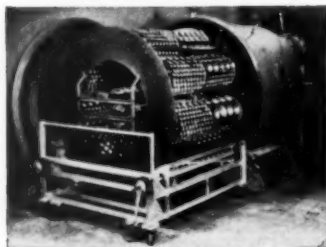
Here's a fast, economical way to give plastics a gleaming metallic finish. *Vacuum coat!* And deposit a thrifty, .000003" layer of shining metal. It's ideal for high-speed, low-cost production.

# on METAL too!

You can *vacuum coat* die castings, rubber mold castings and stampings with a bright, chrome-like finish—save multiple buffing and plating operations. Stretch scarce metals further or eliminate them.

Low in cost. Simple to operate. Millions of novelties, ornaments and appliance parts now get their bright metallic finish from National Research *vacuum coating* equipment. Write today for details.

# Use VACUUM COATING



A National Research Vacuum Coating Unit

## National Research Corporation Equipment Division

70 MEMORIAL DRIVE, CAMBRIDGE, MASSACHUSETTS  
In the United Kingdom: BRITISH-AMERICAN RESEARCH, LTD  
Head Office — Wishaw, Lanarkshire

interesting to certain types of investors. After taxes, net operating earnings for the first half of this year were up 23.1%. (This excludes profits and losses from security transactions, and write-offs and recoveries on loans, since they can easily distort a bank's current earning power.)

• **Hold Up Well**—Adding to the appeal of the bank stocks is the fact that they're good defensive investments. Even if money rates were to turn around, earnings would remain quite stable, at least for a while. Just as it took time for earnings to show the effect of the higher interest rates which followed the Federal Reserve Board's unpegging of the government-bond market in March, 1951, it would take time for bank earnings to drop if money rates go lower in the future.

Probably even more important than earnings stability is dividend stability. Naturally, if your earnings are stable, your dividend rate is usually stable, too. Furthermore, banks have been slow to increase dividends, because they are anxious to build up capital funds. As one analyst points out in a study of New York City banks, the ratio of dividend payout to earnings in the year ending Sept. 30 is lower than for the same period ending Sept. 30, 1951. In other words, there is room to boost dividends.

• **Capital Problem**—Whether or not banks actually boost dividends depends on which they decide is more important: (1) building up capital funds, or (2) keeping stockholders happy. It would be noted that many New York City banks already have fairly comfortable capital-deposit ratios. (Of 17 big ones, 10 had capital-deposit ratios below 1-to-12 at midyear.) That means the New York banks won't be under so much pressure as other banks to increase capital funds, assuming that bank deposits continue to rise. On the other hand, this ratio will look even better if a business recession should push deposits down. Bank analysts figure that for this reason heavily capitalized New York banks would be particularly slow to cut dividends.

This solid capital position has enabled New York banks to cash in on the change that has taken place in banking since March, 1951. And in the opinion of New York bankers it was about time they cashed in on something. For a long time New York banks have earned less on invested capital than other U. S. banks. Lately the ratio has been roughly 6% as against 9%. There are various reasons for this, mostly centering on the fact that New York is the major money-market center.

Reserve requirements, for instance, are higher in New York and Chicago than in cities like San Francisco and

**Mr. Flying Executive**  
TAKE THIS  
BEAUTY ALONG

THE **Scott**  
**AVIOX**  
Say "AY VEE-OK"

Here's complete OXYGEN breathing equipment for you and your associates—all in a handsomely appointed luggage case of the finest leather. Scott AVIOX assures you comfort and safety at higher, smoother, more economical altitudes. Check these "designed for" flight features: portable, ready for use, equipped with Scott Disposable ECONOMASKS. Operated in flight by pilot or passenger. And it's immediately available.

WRITE for your copy of the detailed folder

**Scott**  
AVIATION CORP.  
286 ERIE STREET LANCASTER, N. Y.  
Export: Southern Oxygen Co.  
157 Chambers Street, New York 7, N. Y.

when in CINCINNATI  
I always stop at the  
**NETHERLAND or TERRACE**  
**PLAZA**  
**HOTEL**

- perfect service
- excellent food
- friendly hospitality
- modern accommodations
- unexcelled convention facilities

John G. Harmsman  
General Manager  
Owned and operated by Thos. Emery's  
Sons, Inc., Cincinnati, Ohio

Dallas. That means a higher proportion of assets must be kept with the Fed, earning nothing. Total deposits in New York City banks may change by hundreds of millions of dollars in one day. So banks have to keep fairly liquid.

Further, New York banks have a very small proportion of time deposits, on which reserve requirements are low. To take one obvious contrast, San Francisco's Bank of America, No. 1 U. S. bank, has a large proportion of time deposits—which may be invested in longer-term, higher-yielding paper.

• **Turnaround**—Now some of these factors are beginning to work for the New York banks. Successive boosts in the prime rate on commercial loans (from 2½% early last year to the current 3%) has helped them more than some other banks, because a higher proportion of their assets are in commercial loans. The fact that they have large blocks of capital funds—and thus can make big loans to single borrowers—has attracted some borrowers to New York since defense loans got rolling. At the same time, government restrictions damped down volume of consumer loans for quite a while—though consumer credit has since climbed to the highest level on record. Rates on mortgages and consumer loans haven't jumped anywhere nearly so fast, proportionately, as the prime rate.

All in all, the current trend favors banks that are predominantly "wholesalers," dealing primarily with commercial borrowers, as against "retail" banks, whose business is predominantly small business loans, consumer loans, personal loans, mortgages. Many of the New York banks fit into the wholesaler category.

However, the long-term growth trend in deposits favors out-of-town banks in growth areas, particularly in the Northwest and Southwest. Enough people have faith in the future of Bankamerica, so that when underwriters offered Transamerica Corp.'s 1.3-million shares in that bank at 80% above book value last month, the issue was oversubscribed. Brokers report that a number of life insurance companies and other institutional investors have been buying Dallas and Houston bank stocks lately.

• **Book Value**—Though the market value of New York City bank stocks has been rising, reflecting their better earnings and dividend prospects, there is still scarcely a bank in the city whose stock sells above book value. The situation might change if more banks followed the lead of Chase National Bank, which a few weeks ago boosted its indicated dividend rate to \$2, compared to the \$1.80 it paid last year. The bank-stock bulls are hoping for other dividend news when other New York banks hold their annual meetings next January.



## In One Weekend... an Entirely NEW office!

Here's one company that's well prepared to meet any office expansion problem. And they won't have to move to a new location, or put up with the inconvenience of remodeling, either.

The reason: Hauserman *Movable Walls*... are permanently rigid... permanently attractive... and permanently flexible. As space needs vary, a single phone call to the local Hauserman Representative will bring competent office planning counsel. And in just one weekend, Hauserman's skilled field erection force will handle the entire rearrangement. No muss, fuss or work interruption.

These attractive Hauserman *Movable Walls* save time and money in other ways, too. They scarcely ever require cleaning...and their factory finish never needs repainting. Your Hauserman Representative will be glad to tell you the full story at your convenience.

THIS FREE BOOKLET contains an interesting and informative story about the advantages of Hauserman *Movable Interiors* for every type of application—commercial and industrial offices, laboratories, schools and hospitals. Write today for your copy of "The Inside Story of Building Economy." The E. F. Hauserman Company, 7273 Grant Avenue, Cleveland 5, Ohio.



### Prompt Delivery Korweld® or STEEL

Only Hauserman offers you a choice of panel construction in your movable interior partitions: smooth-surfaced steel, or texture-finished Korweld—the revolutionary new non-metallic Hauserman panel development.

\*TRADE MARK

# HAUSERMAN®

*Movable Interiors*

OFFICES • SCHOOLS • LABORATORIES  
HOSPITALS • INDUSTRIAL PLANTS



## Reconstruction Finance Corporation Sealed Bid Sale

Invitation to Bid for Industrial  
Property at Pinellas Park, Florida

22,868 Sq. Ft.—1-STORY FACTORY BUILDING

Machinery and Equipment, Office Furniture and Fixtures

### Immediate Possession

Reconstruction Finance Corporation invites bids for the purchase of industrial property formerly occupied by the Palmetex Corporation on a 5¼ acre site at Pinellas Park, Fla., 7 miles north of St. Petersburg, 22 miles west of Tampa, near U. S. Highway 19 and served by A.C.L. R.R. siding and switch track. 22,868 sq. ft. in large L-shaped main building plus 3,500-square-foot shed and six smaller buildings. Main building of concrete, brick and steel construction in good condition.

Approximately 6 tons of stainless steel sheets, high-pressure hydraulic presses, lifts, tanks, board machines, drier oven, drying furnace, compressors, agitators, beaters, shredders, lifts, tanks, bins, motors, pumps, office furniture and fixtures.

Anyone interested in purchase of this property may obtain bidding forms and a statement of terms and conditions relating thereto both for purchase of complete plant or separate inventory items at the Jacksonville Agency of RFC, Graham Bldg., Jacksonville 2, Fla.

Bids for the property will be considered only if made in accordance with and subject to the terms and conditions set forth in said statement. All bids must be presented at the aforesaid Jacksonville Agency of RFC by 2 p.m., Eastern Standard Time, on Nov. 20, 1952.

A representative of the Jacksonville Agency of RFC will be on the site from Nov. 10 through Nov. 19, and arrangements may also be made to see the property at other times.

# Amazing PAGE GAGE

—takes the guesswork out of page-end typing!

saves retyping  
hundreds of letters each  
month. Signal warns  
when you are 2½ inches  
from bottom of page  
—and keeps warning you  
how much space is left,  
right to the very end.  
See it demonstrated!



in the new

# Smith-Corona

OFFICE TYPEWRITER



♦Free! TYPING SHORTCUTS! TIME & TROUBLE SAVERS!

Mighty useful 24-page, pocket-size brochure—packed with practical suggestions, typing methods, tips and shortcuts. Write or 'phone any Smith-Corona Dealer or Branch Office, or...

LC SMITH & CORONA TYPEWRITERS INC SYRACUSE 1 NY Canadian factory and offices, Toronto, Ontario. Makers also of famous Smith-Corona Portable Typewriters, Adding Machines, Vivid Duplicators, Ribbons and Carbons.

## FINANCE BRIEFS

New GI mortgages were higher in September than in previous 1952 months, the Veterans Administration says. VA notes the GI mortgage market has been steadily improving since May, but that in some parts of the U.S. there are practically no funds available for these 4% loans.

Ralph Stolklin, who headed the group that just bought control of RKO Pictures Corp. (BW-Sep.27'52,p108) has dropped out, along with two directors. Their reason: "unfavorable publicity directed against us as individuals."

Columbia Pictures Corp. has arranged for a \$15-million credit to finance films. Banks involved are First National of Boston, Bank of America, and Bank of Manhattan. Interest rate will be 3½% for first two years, but may be as high as 3¾% thereafter.

New York City could readily use about 12-million sq. ft. more of office space, asserts Norman Tishman, Gotham realtor. He points out that, from 1947 through 1951, about 5½-million sq. ft. of office space were added.

Life insurance companies will pay about \$138-million in federal income taxes this year, according to actuary Alfred N. Guertin, of American Life Convention. State taxes, including real estate, will eat up another \$173-million. In 1953, the combined payments are expected to climb 8% to \$335-million.

Merger off: Plans to unite Pittsburgh's Peoples First National Bank & Trust Co. and Colonial Trust Co. have been abandoned because of complications always involved in merging a state and a national bank.

TV sets are proving a boon to the electric utilities. The juice they use should boost power industry revenues by at least \$200-million a year, says Dr. Charles B. Jolliffe, vice-president and technical director of RCA.

Bank of America, the nation's largest bank, expects 1952 earnings to equal or even edge over 1951's profit of \$2.12 a share. The bank says its mortgage holdings are netting an average yield of 4.49%, business loans 4.10%, bond investments 1.91%.

Goodyear Tire & Rubber Co. has arranged a five-year, \$100-million standby credit. The company has no immediate plans to use the credit, and reports that it has \$400-million of working capital and no outstanding bank loans.





some steels  
need  
sensitive handling, too

Infinite care goes into every one of Crucible's more than 400 special purpose steels. These steels are so specially compounded to meet individual requirements, that the majority of them cannot be mass produced. That's one of the many differences between Crucible special purpose steels and what we ordinarily think of as Steel.

For instance, while structural steel is almost universal in its application, Crucible *special alloy* surgical steels are used only for delicate medical instruments. Then too, Crucible produces special steel for such varied applications as fishing rod guides, valves, watch springs, railroad car springs, turbines, hacksaws, needles, knives, cooking utensils.

And there are many more. New steels for special purposes are no novelty to Crucible — each day adds to the list that goes from laboratories to furnaces. Your inquiry will bring more than 50 years of specialty steel experience to work for you.

**CRUCIBLE**

first name in special purpose steels

52 years of *Fine* steelmaking

CRUCIBLE STEEL COMPANY OF AMERICA, GENERAL SALES OFFICES, OLIVER BUILDING, PITTSBURGH, PA.  
MIDLAND WORKS, MIDLAND, PA. • SPAULDING WORKS, HARRISON, N. J. • PARK WORKS, PITTSBURGH, PA. • SPRING WORKS, PITTSBURGH, PA.  
SANDERSON-HALCOMB WORKS, SYRACUSE, N. Y. • TRENT TUBE COMPANY, EAST TROY, WISCONSIN • NATIONAL DRAWN WORKS, EAST LIVERPOOL, OHIO



**He can't do business  
with a busy signal!**

**Let P-A-X "inside" telephones  
clear your lines for customers**

When a prospect calling you gets a busy signal, or can't get through your overloaded switchboard, *anything* can happen! You take this chance when your switchboard is used for inside calls.

*It isn't necessary!*

A P-A-X Business Telephone System will handle the load of inside calls—and do it faster. Its automatic service encourages employees to "talk—not walk." Thus it pays for itself many times over, in man-hours saved. It also frees your outside telephones for city and long-distance calls—clears your lines for customers!

To do more business by telephone, install a P-A-X Business Telephone System. Write for information today.



PAX is a system of "inside" telephones, separate from the city telephones, and owned by the user.

PAX is completely automatic and establishes all "inside" calls, within seconds, at any time!

PAX saves on city telephones and switchboard—permits marked economies in rented equipment.

PAX is manufactured by the originator of the automatic telephone.

PAX telephones and switchboards are identical in quality with your city equipment.

**AUTOMATIC ELECTRIC SALES CORPORATION**  
1033 W. Van Buren St., Chicago 7, Illinois  
Offices in principal cities. Export Distributors:  
INTERNATIONAL AUTOMATIC ELECTRIC CORPORATION



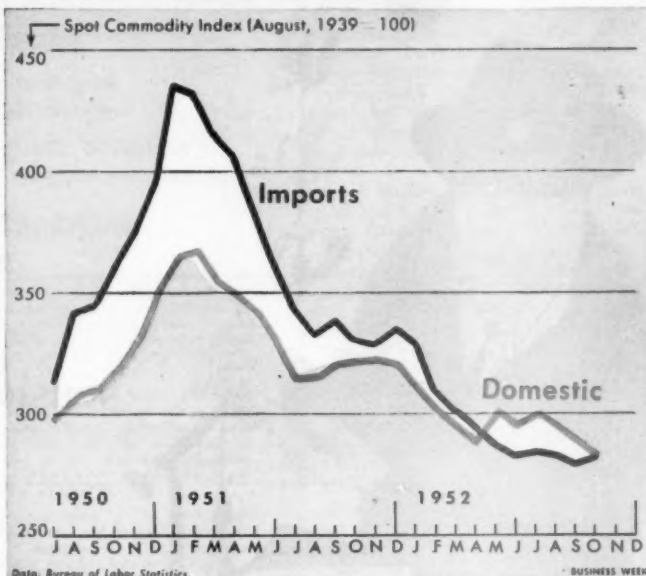
We want to learn exactly how P-A-X would help us. Please send Bulletin 1735 to:

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

## THE MARKETS



## Commodities Wobble Again

After pulling out of the post-Korea slide, U. S. markets have started slipping once more. Meanwhile, foreign markets show no improvement.

Commodity markets still don't know there's a boom on. Prices of domestic raw materials perked up for a while. But markets abroad haven't shown much sign of improvement—and now prices in this country have dropped back again.

There are a few exceptions to this backwardness. Steel, copper, and aluminum have been firm to strong among the major metals. Wool turned up as far back as last April and has held most of its gain. Printcloth prices have edged upward since May. And burlap has been strong for three months.

But that about does it. Even averaging in these few strong items, the indexes can be described, at best, as flattening out.

• **Respective Paths**—And there still is the confusing way foreign and domestic prices keep crossing one another (chart, above). Even allowing for the fact that these indexes don't include a broad list of commodities—hence may not be totally representative—their action takes some explaining.

First, materials produced abroad shot up after the outbreak of hostilities in

Korea. There was danger that the war might spread, that we might be cut off from our normal supplies of war-supporting materials such as tin and rubber. Also, ocean freight rates shot up on everything imported—from burlap and cocoa to silk and wool. Prices of things produced in this country went up, too, but not so fast.

Next, with the fighting more or less confined to Korea—and with a lot of raw materials users overstocked from the buying spree—prices turned down both at home and abroad. In this sharp slide, which lasted from early in 1951 into the spring of 1952, the foreign commodities paid for their excesses by dropping fastest. In due time, their index went below its U. S. counterpart.

• **Meeting Place**—Finally, this month, the two lines came together again. This was more a matter of domestic prices coming down than foreign going up. It can be ascribed mainly to two factors: (1) Prices abroad tugged at the coattails of some U. S. markets, and (2) crop news hurt farm prices.

You can find an example of the first

# What's Behind All the Excitement?



Betsy McCall® inspired by the copyrighted feature in McCall's Magazine. Manufactured by Ideal Toy Corporation, N.Y.

Mary Hartline, lifelike reproduction of famous TV Star of Super Circus, Sunday afternoon, ABC. Mld. by Ideal Toy Corp., N.Y.

Every new "Ideal" doll is the signal for excitement among toy retailers. Betsy McCall and Mary Hartline are no exceptions. But, long before the debuts of these famous dolls, there were many hours of careful planning by Ideal's designers and production men. The result: two dolls that rate high in quality as well as child appeal.

In recreating McCall's Magazine famous Betsy McCall and TV's own Mary Hartline, Ideal has used tougher, durable Celanese® acetate. This fast-molding plastic, long noted for its perfection of molding detail, surface beauty and permanence, is just about the best assurance of long play-life and extra play-safety that a toy can have.

That's why Celanese acetate Plastic is the choice of leading manufacturers of quality toys. With acetate, they know that the hazards of breakage-in-shipment, counter-damage, rejects and returns are cut to the minimum, and customer-satisfaction is assured. Celanese Corporation of America, Plastics Division, Dept. 129K, 180 Madison Avenue, New York 16. In Canada, Canadian Chemical & Cellulose Company, Ltd., Montreal and Toronto.

**Celanese\***  
Acetate PLASTICS  
\*Reg. U. S. Pat. Off.

ig wheel in the automotive business...



## SHARON\* RIM STEEL DECLARED BEST BY LEADING BUILDER OF AUTOMOTIVE WHEELS

We use a lot of wheels here in America. Our cars, trucks, busses, aircraft, farm and construction machinery require hundreds of thousands of wheels annually. Wheels that must be a match for our constantly increasing speeds and weights — wheels that must be tough and durable, exactly round and perfectly balanced.

Mass production is essential to keep the cost of wheel production at a minimum. Today massive wheels are practically squeezed into shape on giant presses at

amazing speeds — each one a perfect circle of weight and balance.

To enable wheel builders to produce at high speeds requires the finest rim and wheel steels. Each coil must be of exactly the right analysis, free of blemishes with consistent gauge uniformity.

Leading wheel makers have learned they can trust Sharon to deliver this kind of steel day in and day out — that's why today Sharon is one of the leading producers of strip steel for the continuous production of rims and wheels.

\*Specialists in STAINLESS, ALLOY, COLD ROLLED and COATED Strip Steels.

### SHARON STEEL CORPORATION

*Sharon, Pennsylvania*

DISTRICT SALES OFFICES: CHICAGO, ILL., CINCINNATI, O., CLEVELAND, O., DAYTON, O., DETROIT, MICH., INDIANAPOLIS, IND., MILWAUKEE, WIS., NEW YORK, N. Y., PHILADELPHIA, PENNA., ROCHESTER, N. Y., LOS ANGELES, CALIF., SAN FRANCISCO, CALIF., MONTREAL, QUE., TORONTO, ONT.

For information on Titanium contact Mallory-Sharon Titanium Corp., Niles, Ohio

SHARONSTEEL

factor in some of the commodities produced both in this country and abroad. Zinc and lead are conspicuous. London prices in the last few weeks have held persistently below New York, even after allowing for freight and tariff. This has resulted in sharp cuts in the metals here.

• **Big Crops**—On the farm front, big wheat and corn crops (in combination with lower export prospects) have hit grains. In many recent market sessions, prices have been below the government's support levels. Moreover, corn has presented an unusual marketing problem. Autumn weather has been unusually good; farmers have been able to market the cereal without holding it for an intermediate drying period. This has tended to glut the market. Apparently there still isn't enough storage space for government loans to keep the market orderly.

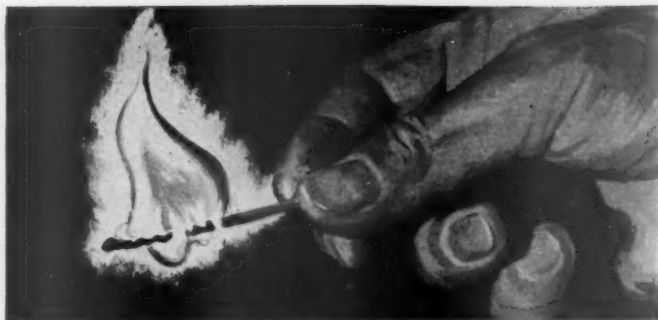
Cotton, too, has suffered from big marketings. In spite of advice from Washington to hold on, farmers apparently have been selling quite liberally from this year's fairly ample crop. And buyers are reported to have sensed their advantage; they have been buying sparingly. The fiber has dropped from around 41¢ a lb. last spring to 36¢.

Adding to farmers' woes has been the seasonal rise in livestock slaughter. That always tends to send steer and hog prices down in the fall. This year, the situation is more complicated than usual because the supply of beef animals is officially estimated as the largest ever. Steers are about \$3 a cwt. below a year ago. This has carried hogs a bit below year-ago levels, even though pork may be somewhat less plentiful than last fall.

• **Other Items**—The markets for many other materials have problems all their own. Rubber, for example, came up against a new switch in the U. S. government's stockpile buying this week and took a further tumble—lower than it has been in the last two years or more. Cocoa, too, has come down from the high horse it had ridden as a supply shortage threatened. (The shortage was less than expected, some marketers say, because high prices cut use.)

Edible fats and oils have quieted after last summer's flareup (when the cotton crop looked short), and soap-making tallow continues to suffer from the competition of chemical detergents.

Sugar has been edging forward in this country even though Cuba is almost buried under its record crop. A major cause of strength in the U. S. is the government quota. This limits imports to a point, many in the trade argue, where the over-all supply in 1952 will run a good deal short of actual use. However, nothing that might be described as a real pinch has developed as yet.



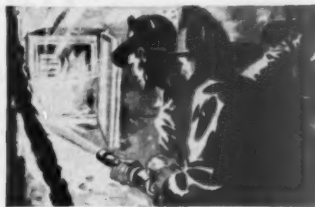
1. When temperatures exceed 350° F. (3/4th the heat of a match flame), paper chars. If you're entrusting business records to an old safe, or any safe without the Underwriters' Laboratories, Inc. label, expect it to act only as an incinerator above 350° F.

## How much heat does it take

... to put you out of business?



2. It could put you out of business. 43 out of 100 firms that lose their accounts receivable, inventory and other records by fire never reopen. And don't feel any safer because you're in a fireproof building.



3. A fireproof building simply walls in and intensifies a fire inside an office. And note the clause in your insurance policy that says: "Proof-of-loss must be rendered within 60 days." How could you—without records?

The risk is too great. Don't take it. Find out today, how little it costs to protect your records—and your business future—with a modern Mosler "A" Label Record Safe. It's the world's best protection. Meets the independent Underwriters' Laboratories, Inc. severest test for fire, impact and explosion.



The handsome new Mosler "A" Label Safe designed by Raymond Lowry brings, at no extra cost, distinguished beauty to any office. New convenience and security features include the "Counter Spy" Lock with numbers on top of dial to eliminate stooping and visible only to person working combination. Many models to fit your need.

IF IT'S MOSLER...IT'S SAFE

**The Mosler Safe Company**  
Since 1848  
World's Largest Builders of Safes and Bank Vaults

Consult the classified telephone directory for name of the Mosler dealer in your city, or mail coupon now for free informative material.

THE MOSLER SAFE COMPANY • Dept. BW-11, Hamilton, Ohio

Please send me (check one or both):

- ☐ Free Mosler Fire DANGERater which will indicate my fire risk in 30 seconds.  
☐ Illustrated catalog, describing the new series of Mosler Record Safes.

NAME \_\_\_\_\_ POSITION \_\_\_\_\_

FIRM NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ ZONE \_\_\_\_\_ STATE \_\_\_\_\_



# MANAGEMENT



## What the Russians Know about

"Five-year plan" is rapidly becoming an American expression. A few weeks ago *BUSINESS WEEK* reporters talked to a large sampling of companies about how they schedule their future activities (BW—Sep. 20 '52, p84); they found that month by month more companies are setting up formal arrangements for their advance planning—and that the most practical working plan is likely to reach just about five years into the future.

The Russians have had a sort of patent on the words, five-year plan, ever since 1928, when they brought out their first one. So much so that a lot of businessmen, who want nothing to do with the centralized management of industry for which the term stands, have avoided using it in their own operations.

All the same, when the Russians announced their fifth five-year plan a few weeks ago, some executives struggling to work out effective planning procedures must have wondered if the Russians may not have found out something useful about the management problems involved. Communist planning and corporate planning both have to work out a subtle flow of information, ideas, and authority between planning executives and operating executives.

• **Common Problem**—Set side by side, there are far more differences in American and Soviet business management than there are similarities. Even so, when you look at the economy as a whole, one basic problem is the same:

production. Planners, whether they sit in Moscow or in New York, have to figure out when, what, and how much a given industrial organization can and should produce.

In Russia, the answer to these questions is found in the *planovoye khozyaistvo* (planned economy). This is total planning. Production goals are assigned to every major segment of the economy; rubles are budgeted—from Stalin's salary down to that of the village schoolteacher.

Soviet seers look into the far future, into the immediate future, and at the present. There is a general outline covering a span of 15 years—keyed to the sinews of the economy (oil, steel, coal, power). This plan serves as a guide to long-range investment and development. Then there are the five-year plans, which are more concrete and embrace the entire economy. Finally, there are the annual and quarterly plans which fill in the details and spell out the current progress of Soviet industry.

• **Triple Flow System**—To chart a plan, the master planners in the Kremlin use an elaborate system of directives and reports (chart):

- First, the top Council of Ministers sets a preliminary goal, and notifies the industries involved what will be expected of them.

- Industry makes a detailed report on its capacity.

- The council coordinates its initial goal with what industry can produce

or can be horse-whipped into producing, then plots its final plan.

### I. Collecting the Data

To see how this works, take a look at what happens in the steel industry when a directive goes out:

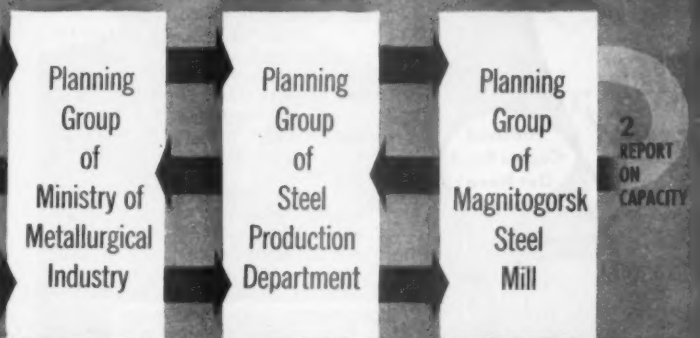
After the Council of Ministers fixes its target, it's up to the Gosplan (State Planning Committee) to draw up an over-all plan to cover every segment of the industry. (Because all industries, outside a few artisan groups like shoemakers and potters are state-owned and controlled, the Gosplan practically amounts to law.)

The Gosplan department concerned with steel sends down to the planning group of the Ministry of Metallurgical Industry preliminary directives which are known as the "controlling limits" for the industry. These limits, based on previously gathered data, include such things as figures on gross production in terms of current prices, marketed production in wholesale prices, physical output, expansion, number of workers, wages, amounts of raw materials, estimates of expenditures, income, and profits.

The metallurgical group sends these breakdowns to the planning groups of the major steel operating departments, which subdivide the information into preliminary quotas for individual steel mills.

• **Up the Ladder**—At this point (see charts), the flow is reversed. The plan-

## HERE'S HOW THE SOVIETS DO IT:



## Long-Range Planning

ning group of each mill offers a "counter-plan," which includes its estimate of the plant's capacity and its needs.

These counter-plans are sent up to the planning group of the steel production department, which now has the task of coordinating all the mill plans before passing it up the ladder to the ministry. The latter coordinates the steel department reports with those of other metal branches, sends the over-all plan to the Gosplan, where it is meshed into one general plan for the entire economy, and sent back up to the Council of Ministers.

The next time the directive comes down the line, it's the law.

### II. Based on Supply-Demand

At the heart of all this Soviet planning is a system of "balances," which is nothing more nor less than a series of equations in which supply is balanced against demand. The Soviet refers to those equations dealing with commodities (like steel and coal) as "natural" balances; to those dealing with finances, labor distribution, etc., as "synthetic" balances.

Here's how the annual balanced estimate of steel is set up:

On one side of the equation is the total national supply of steel—including steel in storage at the beginning of the year, estimated production, and imports. On the other side is the total use of steel in the economy. This in-

cludes the estimated amount in storage at the end of the year, quantity estimated for the industry's own use, amount allocated to other industries, and tonnage slated for export. Each of the component parts of the equation is planned on the basis of data collected by the Gosplan and estimates projected into the future.

• **Integration**—Similar balance estimates are worked out to cover other aspects of the steel industry's activities: finances, labor, etc. These balances—together with similar balances for other branches of the economy—are integrated by Gosplan into a balance of the national economy.

Because of the numerous equations involved, these balances when projected into the five-year plans are rough estimates, at best. But Soviet leaders insist that the five-year plans are not rigid blueprints, but flexible guides to be constantly reviewed; that, actually, the system of mapping annual and quarterly plans was inaugurated to provide this flexibility which must be maintained to cover unforeseen contingencies such as a worsening international situation.

### III. How Practical Is It?

On paper, it looks as though the planners had learned a lot since they set up their first five-year plan in 1928. Actually, they still have a long way to go:

- They haven't licked the time-

allwood\*  
hardboard



## MEETS YOUR SPECIFICATIONS

Durable, dependable Allwood is produced to meet your needs for a readily available material to use in manufacturing, in construction, or even packaging products for shipment. Allwood is the new Douglas fir hardboard of sustained quality, strength.

Simpson Logging Company of Seattle, Washington, are exclusive national sales agents for Allwood.

Allwood can be bent, die cut, scored, drilled, laminated, shaped, routed, planed, sawed, nailed, glued and processed in almost any way you wish or the job demands.

Send for FREE booklet  
THE ALLWOOD STORY



OREGON  
LUMBER  
COMPANY  
BAKER, OREGON

\*Trade mark of  
Oregon Lumber  
Company

## NEW office copying discovery...

So Compact!

Insert Exposed Copies Here!

makes **DRY** PHOTOCOPIES of anything... *Instantly!*

Finished Copies Feed Out Here!

Revolutionary new

### APÉCO *Auto-Stat*

New, low-cost machine makes photo-exact copies direct from original letters, forms, bids, contracts, invoices, reports, blueprints.

Here is the first major advancement in office copying in the last 15 years. Can save you up to 80% on your copying jobs! Eliminate costly retyping, hand copying, checking or sending outside for expensive copying service. The Auto-Stat is the first low-cost machine that makes error-proof, legally-accepted, black-and-white photo-like copies—WITHOUT SLOW, MESSY DEVELOPING, FIXING, WASHING OR DRYING. It's fast—only 2 simple steps instead of 12 required by old methods. Makes prints instantly from any originals up to 11 x 17 inches—whether printed on one or two sides. Requires no dark room—and any inexperienced clerk can operate it!

**So low cost! So compact!**

Fits on the corner of a desk or table and is priced within the budget of even the smallest firm. It's portable—just plug in any outlet—and the Auto-Stat is ready for instant operation.



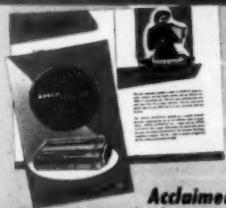
#### COPIES PEEL APART!

Copies feed out automatically... then you just peel copies apart, that's all there is to it. All Electric! Fully automatic!

No developing  
No washing  
No fixing  
No drying  
No trays  
No dark room

HAVE YOU READ THIS NEW BOOK?

It's FREE!



Here is a really informative, worthwhile, factual report on an important new copying development. New 12-page booklet pictures and tells complete Auto-Stat story—shows how you can use this revolutionary new photocopy method.

**Acclaimed by business methods experts!**

Developed and manufactured in the U.S.A. by

**AMERICAN PHOTOCOPY EQUIPMENT COMPANY**

American Photocopy Equipment Co.  
2839 North Clark Street, Chicago 14, Ill.

Please Rush me—without obligation—FREE copy of your new book on Auto-Stat—with full details on this new photocopy method. Dept. BW-92

Name \_\_\_\_\_  
Firm \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

MAIL TODAY!

element problem involved in the triple flow process. For example, the third five-year plan began to operate in 1938, while the plan itself wasn't in final form until 1939. The current five-year plan was announced late in the same way.

- Plant managers are so busy filling out forms they can't devote their full attention to management.

- Because the incentive system for plant managers is based on overfulfillment of production quotas, managers tend to lower their estimates.

- Supplies and raw materials allocated to plant managers on paper are often unobtainable, or are not delivered on time.

- Labor productivity hasn't kept pace with planned goals.

- **Two Climates**—Many American businessmen who are interested in long-range planning are wondering if they can learn anything from the Soviet's experience.

One of the first things to remember is that the Soviets operate in a different world from that of America. Because the entire Russian economy is at the command of the Politbureau, it can select the industries for high-priority development, and lay down the line. It can shift resources from less essential sectors to key industries, if the latter lag. That is one reason why the Soviets constantly over-reach heavy industry goals, while consumption targets are often missed by a mile. The books are full of such examples:

- The fourth five-year plan called for reaching an annual production of 240-million pairs of shoes by 1950. Actual production in that year was 197-million pairs.

- The same plan called for 580-million pairs of hosiery—but only 430-million were produced.

Also, the Soviet method of "balanced estimates" planning is not practical in the U.S., even though the balance equations resemble the supply and demand schedule of a free enterprise economy. In the U.S., these schedules vary according to market prices. Soviet decisions, on the other hand, are dictated by top-level directives, independent of prices, since these are fixed by Soviet planners. That means that in drawing up a balance equation, they can fill in details of production and distribution—impossible in a free market economy, where no single over-all agency assigns resources to different uses.

However, Soviet planning techniques might offer some ideas to the American businessman. He might do well to take a look at the triple flow setup. If he knows what's going on at the bottom of the ladder in his own company, he's in a better position to know how ambitious a program he can launch.



# "We Like the Idea of Credit Unions for Our Employees"

says **MR. JOHN HOLMES,**  
President, Swift & Company



*"We like the lessons of frugality and thrift which credit unions teach. These things make for happier, more efficient employees. The feeling of security that comes from thrift is a bulwark against family unhappiness."*



*"The nation's welfare is helped by increased saving, encouraged by credit unions. This provides a check upon the inflationary trend, by removing money which, if spent, would merely add fuel to the inflation fire."*



*"Thrift, economy and character are linked together. Credit unions do much to promote them. Thrift and better financial management contribute to high morale of employees and are fundamental to national well-being."*

A credit union is a practical means for your employees to solve their own personal financial problems. It encourages thrift and provides a convenient source of low cost credit when needed. Where there is a credit union, such problems as wage garnishments and pay advances are practically eliminated.

Your employees need only your approval to organize a credit union. It would be operated by them and for them, independently and without cost to your company. Yet it can benefit your business more than any other employee activity.

The credit union idea is over 100 years old. It has earned the whole-hearted endorsement of government, business, labor and church. Credit unions today have the advantage of long experience and simplified methods through the Credit Union National Association. Complete information about how you can help get a credit union started for the benefit of your employees and your business will be sent upon your request. Clip the "memo" below as a reminder.

**15,000 credit unions are now serving over 6,000,000 people including employees of such companies as:**

Godchaux Sugars, Inc. • McGraw-Hill Publishing Company  
Elgin National Watch Company • Pollack Forests, Inc.  
Cadaby Brothers Company • Hercules Powder Company, Inc.  
Jantzen Knitting Mills

**GIVE THIS TO YOUR SECRETARY**

**MEMO:**

*Please remind me to write  
to Dept. BW-7 Credit Union  
National Assn., Madison, Wis.,  
for free information  
regarding a credit union  
for our employees*



**CREDIT UNION  
NATIONAL ASSOCIATION**

MADISON 1, WISCONSIN, U. S. A. • HAMILTON, ONTARIO, CANADA



## PREVENTION Today MEANS PROFIT Tomorrow

Prevent costly accidents in your plant today... insure your profits for tomorrow. Protect your employees against possible foot injury with DORSEY SAFE-T-SHOES... America's finest line of Safety Shoes.



NO. 6900

Styled for Durability  
Designed for Safety!

DORSEY'S one-piece back construction, Armolite flange steel toe and steel shank arch add-up to perfect support, protection and comfort.

THERE IS A DORSEY SAFE-T-SHOE FOR EVERY INDUSTRIAL NEED! WRITE TODAY FOR COMPLETE INFORMATION ON THE DORSEY SAFE-T-SHOE LINE.

**The Dorsey  
SAFE-T-SHOE  
COMPANY**  
CHATTANOOGA, TENN.



## The Defense Airlift That Moves by Inches

Today's weapons are checked to .0001" by micrometers.

But larger micrometers may be heavy enough to cause operator fatigue or forced measurements.

Defense plants are answering this problem with a new kind of airlift. They use "Feather Touch" micrometers with cold drawn steel frames which are hollow! These are so light they greatly reduce operator fatigue. What's more, the vacuum sealed hollow frames dissipate heat from hands or air without distortion.

"Feather Touch" micrometers are made exclusively by Tumico, St. James, Minn., the people who make up R's in precision. Write for literature.

**TUMICO**  
PRECISION TOOLS

## THE MANAGEMENT PATTERN

### What Can Industrial Psychology Do?

**M**OST BUSINESSMEN will get a kick out of the best-selling book, *How to Succeed in Business Without Really Trying*, by Edward S. Mead (Simon & Schuster, \$2.50). It's a hilarious satire in which all but the most saturnine executives can find some facet of their own careers to laugh at.

But what makes it a satire, and not just buffoonery, is the painful fact that there is a strong element of truth in what Mead has to say. It touches one area of business management where you'll find more disagreement, rationalization, and outright quackery than any other—personnel.

It's also true, though, that management is rapidly recognizing this fault. It knows pretty well that the next major step it must take to improve itself is to make history—not satire—out of Mead's book.

**T**HAT IS WHY during the past several months *BUSINESS WEEK* has published a series of articles on psychology's role in business. Many people—especially psychologists—feel that the proper use of psychology will give management something more than the erratic, costly trial-and-error personnel methods of the past, sometimes based on nothing more than the boss' impressions gained from short elevator rides with junior league executives.

The psychological stories which *BUSINESS WEEK* has just finished (BW-Oct.18'52,p186) point up the important fact that industrial psychology has won a strong place in management thinking, but there is room for even more emphasis and a lot more development.

At the lower levels, where management can deal with large groups of people doing fairly standardized work, psychology has a lot to offer, and an increasing number of companies are using it to advantage. But as you go into higher levels, both management and the psychologist are still groping. In too many cases, management's approach has been to impose untried psychological techniques blindly, and to accept questionable results as evidence of their worth.

Management has a tendency to be gullible about psychology, and there are psychologists ready to make capital out of that naivete.

That is probably to be expected in a field where there are still basic disagreements among the scientists themselves. When one engineer talks to another, they don't have to argue about how to measure, say, pressure.

There are two conclusions you can draw from all of this: (1) Management sees the need for putting science in human relations just as it has done in other industrial fields. (2) To supply that science, psychology, especially when it goes beyond the rank-and-file, needs to know a lot more about how people work in business.

**T**HESE CONCLUSIONS point, then, to the major requirement of industrial psychology: research.

Some companies can honestly boast about good psychological research programs, but they are few and isolated; and there is not enough interchange of knowledge. By far the majority of companies, big and small, have spent nothing or only a pittance on scientific research in personnel. They would rather buy somebody else's—and in industrial psychology there is not much to buy.

**O**NE TROUBLE is that management wants results too quickly. That's why psychologists selling packages of academic nonsense often can move in.

Management will have to spend millions of dollars on research if it wants enduring results. It will have to open its topmost management doors to long-haired, probably annoying, people before it will get answers to basic questions about what it takes to choose the right people for the right places, then how to develop them.

Even in the better explored area of industrial psychological testing among the rank-and-file, there is need for more research, greater refinement, and broader applications.

All this costs money, but if the money is not spent, industrial psychology can die out like the efficiency experts did—through management disillusionment.

Without this kind of research, Mead may very well be able to write another book in a few years: *How to Get Ahead in Business Despite the Psychologists*.





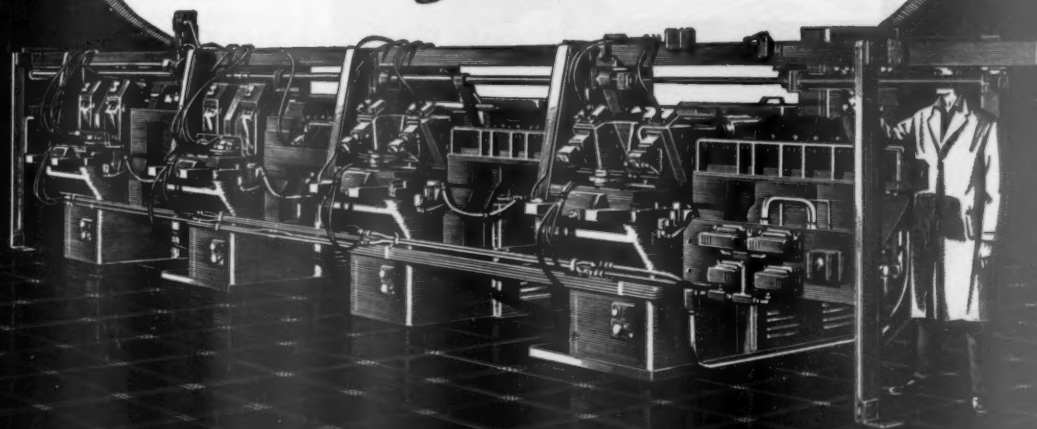
*What names come to your mind  
when you think of  
progressive manufacturing?*

**M**OST of the ones you think of first have bought New Britain Automatics within the past few years for new and better ways of doing important metalworking jobs. The New Britain-Gridley Machine Division, The New Britain Machine Company, New Britain, Conn.

**AUTOMATIC BAR AND CHUCKING MACHINES • PRECISION BORING MACHINES  
LUCAS HORIZONTAL BORING, DRILLING AND MILLING MACHINES**

**NEW BRITAIN**

*Automatics*

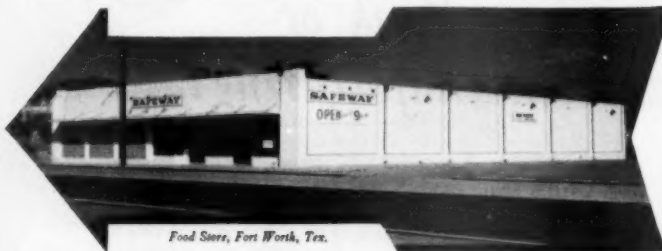


*When Building...move in the right direction*  
...choose **CONCRETE** construction



Concrete masonry house, Toledo, Ohio

... for a firesafe home of charm and beauty in any style or size. With its moderate first cost, low upkeep and long life your concrete house actually costs you less per year.



Food Store, Fort Worth, Tex.

... for stores, factories, apartments, schools and public buildings, where considerations such as durability, strength, firesafety, beauty and low annual cost are extremely important.



South Federal Place, Santa Fe, N. M.

... for paving highways, streets and alleys. Concrete pavement lasts longer, is safer and smoother-riding. It stretches your tax dollars by giving you true low-annual-cost service.



Farm near Shewan, Md.

... for farm buildings and improvements. Concrete construction is economical, sturdy and firesafe. It provides protection against destructive forces like rats, rot, termites and storms.

## PORTLAND CEMENT ASSOCIATION

33 W. Grand Avenue, Chicago 10, Illinois

A national organization to improve and extend the uses of portland cement and concrete ... through scientific research and engineering field work

## Group Medicine

Big companies back plan to build centers, offer annual care, hospitalization for under \$100.

Industry is getting in at the start on what could eventually turn out to be the biggest step in medical-hospital insurance programs since Blue Cross and Blue Shield.

This week, Wendell W. Anderson, president of Bundy Tubing Co., Detroit, told a press conference in New York about plans drawn up by a non-profit organization called the American Federation of Medical Centers, Inc. The idea is twofold:

- To build community medical centers all over the country.

- To provide completely prepaid medical and hospital care at something under \$100 a year for each person.

Bundy is chairman of the AFMC board of directors. Also on the board is Frank Surface, assistant to the president of Standard Oil Co. (N. J.). Both companies are giving financial help to the organization. A couple others of like importance also are reported ready to push the plan.

With that kind of backing, there's a good chance that the AFMC's ambitious program will make the grade.

- **Group Practice**—Dr. Edgar G. Norris, Detroit surgeon and educator, got the idea about six years ago as an answer to (1) the controversy over "socialized" medicine and (2) the admitted need for spreading the best kind of medical care there is at a reasonable price.

There are a number of plans for prepaid medical and hospital care in the country. The thing that sets the AFMC apart from most is its use of the group medical practice system. In group practice, doctors band together under one roof to handle their patients, instead of practicing alone. It is a growing trend, but has never had national scope or the kind of backing that AFMC can offer.

AFMC's medical centers will have their own staffs picked from each community—general practitioners, specialists, dentists, eye doctors. The centers will work closely with local hospitals, probably provide the broad clinical services that many small hospitals can't now afford.

- **Financing**—At the outset, funds from the national group will help pay part of the cost (around \$15,000) of a survey to find out what a community needs. After the survey, the national organization will help community leaders organize the local group and put on a drive to pay for building the centers.

Once a medical center is built, it is

*In our business,*

**TIME**

*is the big test*



We make the kind of products that you remember best (and most favorably) for being able to *forget* about them! Shipment after shipment of Columbia cold finished steel bars and Summerill cold drawn seamless steel tubing can come into your plant, move through your production processes, and never raise a fuss or a feather. Why? Because they're always dependably alike —always *right*. That's been going on for half a century now, and it's a habit you can count on us to continue.

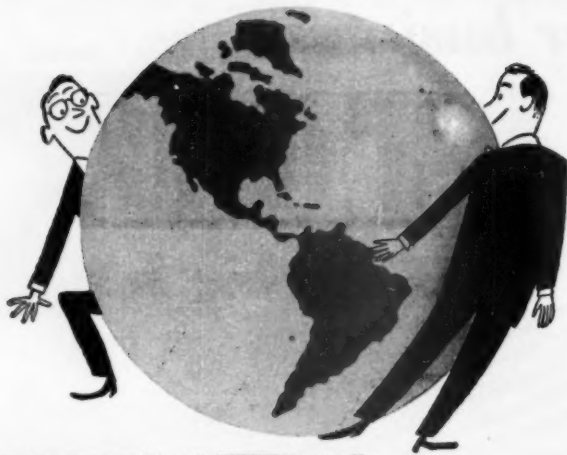


**Columbia**

**STEEL & SHAFTING COMPANY**  
**SUMMERILL TUBING COMPANY DIVISION**

Pittsburgh 30, Pennsylvania

W4D 4099 **SPECIALIZING IN COLD FINISHED STEEL BARS and SEAMLESS STEEL TUBING**



## Catching up on business

McGraw-Hill  
International  
Publications  
Give You

• **ABC Audited Circulation**...you know who is reading your sales message and where they are located in your export market.

• **World-Wide Coverage**...in every part of the globe there are McGraw-Hill International offices or representatives serving our publications, our markets and our advertisers.

• **Extra Export Services**...market research, help in living up overseas sales representatives, translations, merchandising, counselling, etc.



ACTUALLY, THESE TWO ARE LOOKING FOR EACH OTHER. One is an American manufacturer interested in bolstering his falling backlogs with some healthy business from abroad. The other is a foreign importer who's looking for the "tools" and other products his country needs to build its economic and military strength. More than likely, they'll meet somewhere in the pages of one or more of McGraw-Hill International's business magazines. No surprise, because the manufacturer knows from experience that the most direct, effective and economical way to reach and influence the men who do the buying abroad is through McGraw-Hill International magazines and services.

Farsighted exporters are planning increased advertising drives now. Why not call your nearest McGraw-Hill International Representative today. He'll be glad to help you with your export plans. McGraw-Hill International Corp., 330 West 42nd Street, New York City.

### McGraw-Hill International

Business and Technical Magazines and Books for Overseas Circulation  
Offices in all principal cities of the world.

McGraw-Hill Digest • The American Automobile (Overseas Edition) • El Automovil Americano • Pharmacy International • El Farmacéutico • Ingeniería Internacional Industria • Ingeniería Internacional Construcción • McGraw-Hill American Letter • The Machinist (London) • Annual Buyers Guide for Automotive Products, Industrial Machinery and Construction Equipment • Overseas Business Services • Book Export Division • World News

HEADQUARTERS FOR WORLDWIDE BUSINESS INFORMATION

on its own, operated autonomously by the community organization. AFMC backers say such a center can achieve a paying basis.

Local industry will be called in at the beginning. Because of expected savings in company medical outlays plus a cut in absenteeism through improved employee health, AFMC thinks companies will be quick to support the plan. Just as in Blue Cross and Blue Shield, industry can sign up for group policies, paying all or part of the employee premiums.

• **Trouble?**—So far AFMC has met little opposition from organized medical groups. But if it has the same experience as New York City's Hospital Insurance Plan, some controversy can be expected among doctors.

New York's HIP is much the same as AFMC, but is confined to New York City and Long Island. The biggest objection many doctors raise is on group practice.

On the West Coast, group medical practice had to win a battle in the courts with the local medical association.

### MANAGEMENT BRIEFS

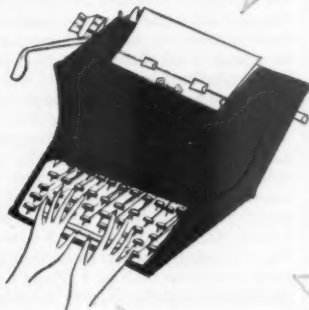
Murray Breese Associates, Inc., New York advertising agency, is moving its offices this week to Irvington-On-Hudson, in New York's Westchester County. It is the first Manhattan advertising agency to join the parade of companies to the outskirts (BW—Jun. 28'52, p.88). Breese will occupy one of the original buildings on the estate of George Morgan, brother of J. Pierpont, Sr.

For every 60 employees industry today needs one engineer. That's the ratio that modern production requires, Dr. C. G. Suits, General Electric vice-president, told the Yale Engineering School. He contrasts that with one engineer for every 250 employees in 1900. At GE, the ratio right now is one in 20.

Deere & Co. is giving employees of its Syracuse Chilled Plow Co., Inc., more than two years' notice that it intends to shut down operations there. Letters explaining the move in detail went out to all employees' homes. The first cut-backs start next summer, with final closing due in 1955.

Challenge, a monthly digest-size magazine, has been launched by New York University's Institute of Economic Affairs, with the help of the Alfred P. Sloan Foundation. It concentrates on economics, aims to reach the general public.

## Office noise ...



... bouncing off hard surfaces ...

... creates nervous tension ...

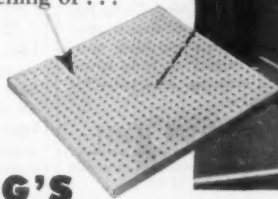
... robbing you ...

... and your workers ...

... of energy, time ...

... and efficiency.

Guard against irritating  
noise with a ceiling of ...



## ARMSTRONG'S CUSHIONTONE

Don't let a high noise level mean a low efficiency level in your office. See your Armstrong Acoustical Contractor for a free estimate on efficient, low-cost Cushiontone®. For the free booklet, "How to Select an Acoustical Material," write Armstrong Cork Company, 5211 Walnut Street, Lancaster, Pennsylvania.





## Fast Transportation of GRAINS and FEEDS...

### ... Big Business on the M. & St. L.

For 81 years, Fast Dependable Transportation in the Great Midwest of products of fertile farms and of the many things that farmers buy has always been Very Big Business on

#### The Minneapolis & St. Louis Railway

Since its first track was built in 1871, the M. & St. L. has contributed more and more to progress and prosperity of the Midwest by Fast Freight Service for the growers of Grains and other farm products and for the manufacturers and distributors of the Foods and Feeds made from those products.

In 1951, more than one-fourth of all freight carried by the M. & St. L. consisted of Products of Agriculture.

In the Midwest, premier farming region of America, the M. & St. L. serves four rich Agricultural States, Illinois, Iowa, Minnesota and South Dakota. These also have developed rapidly as Leaders in Industry, particularly the processing of grains and other farm crops.

Today a modern Diesel-powered Railway, the M. & St. L. is better staffed and equipped than ever before to provide

#### Fast Freight Service in the Midwest

- For Growers of Grains and Other Crops
- For the Great Feeds and Foods Industries



In 1951, Illinois, Iowa, Minnesota and South Dakota, the four States served by the M. & St. L., harvested 1,264,307,000 bushels of corn or 42% of the nation's crop; 645,615,000 bushels or 49% of the oats; 59,809,000 bushels or 23% of the barley; 10,257,000 bushels or 48% of the rye; 16,059,000 bushels or 48% of the flaxseed; 146,788,000 bushels or 52% of the soybeans; 23,104,000 tons or 21% of the hay; and as always vast quantities of other cash and feed crops.

**MINNEAPOLIS & ST. LOUIS Railway**  
West Franklin Avenue, Minneapolis 4, Minnesota



"I hated filing too, before **CORRES-FILE..**  
now it's laborless filing — and in half the time!"

For 60 long years the 4-drawer file has been a necessary evil — since 1893 filing clerks have been pulling, pushing, stretching, stooping, kneeling, squatting — performing more like gymnasts than office workers. No wonder the personnel turnover for filing clerks is the highest — and comparative efficiency the lowest. But, at last, filing drudgery can be eliminated. Office modernization can

include the filing system too — because Corres-File has become a reality. Designed to fill a vital and specific need, Corres-File eliminates more than 50% of clerical operating time — this brings your filing operation up to new heights of filing speed, efficiency — and economy. Send today for complete information.

**THERE'S A CORRES-FILE NEAR YOU - ASK FOR A DEMONSTRATION TODAY!**

**EFFECTIVE TOOLS FOR  
EFFECTIVE MANAGEMENT  
WASSELL  
ORGANIZATION, INC.  
WESTPORT 3 • CONN.**

I'm interested in knowing more about Corres-File — and how it can save for me.

Name \_\_\_\_\_  
Title \_\_\_\_\_  
Company \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

## LOCAL BUSINESS

Business by and large is a local affair, and local news takes a large place in every businessman's thinking.

Here, from a sampling of cities around the country, are some of the local events that made news last week.

### Threat to Move

**BOSTON**—Textile manufacturers have been moving south for so long that New England is almost used to it. But the area has counted on its nontextile manufacturers to stand firm, and even to expand to fill the gap left by departing textile firms.

So New Englanders got a rude shock last week when executives of two big nontextile firms warned that they, too, might be forced to move if the economic climate became sufficiently unfavorable. The two: Joseph P. Spang, president of Gillette, and Charles Francis Adams, president of Raytheon. Their warnings came in the course of a panel discussion of New England's employment prospects, part of Associated Industries of Massachusetts' 37th annual meeting, in Boston.

Spang said that "Gillette wants to stay here," but reported that the company is paying "dues of \$800,000 a year" to do so (by dues, he said later, he meant taxes). He added that "Massachusetts industries can continue to grow only if the legislative climate will allow them to do so."

Adams was even more blunt. He condemned "the high cost of doing business in Massachusetts," and said this factor makes Raytheon think twice before going ahead with expansion plans. When the rearmament period is over, he added, Raytheon may consider moving those operations which do not require skilled labor out of the state.

### Famine and Feast

**DETROIT**—Early this year Detroit had a serious unemployment problem, so serious that the federal government held hearings here to try to find some solution. Since then, however, the auto industry is back into high gear on auto production, and is fast getting into high gear on defense output.

Last week the Michigan Employment Security Commission estimated that Detroit would face a shortage of 50,000 workers by Nov. 15.

There are less than 50,000 unemployed all told in Detroit today, and a great many of these are unemployables. The only solution seems to be to relax

hiring standards to include women and workers with less physical stamina than is now demanded by many employers. But employers here still object to both these groups, on the grounds that they (1) lack flexibility for transfers from one job to another, and (2) can't lift heavy loads.

## Annexation Stalled

**MODESTO, CALIF.**—Modesto's program for wholesale annexation of its "fringe" areas (BW—Oct.11'52,p186) stalled again last week. The City Council, by a 4-to-3 vote, defeated a proposal to put wholesale annexation to a vote of all the residents.

The opposition argued that the wholesale program would bring on "municipal indigestion" for several years. Proponents, led by Mayor Harry Marks, agreed, but argued that the city could cope with that better than it can with the present situation, in which the fringe areas use many city services that are paid for only by city residents.

The only course open now is to go ahead with certain piecemeal annexations which are legally possible. Marks says these will be both costly and inefficient.

## Housing Squabble

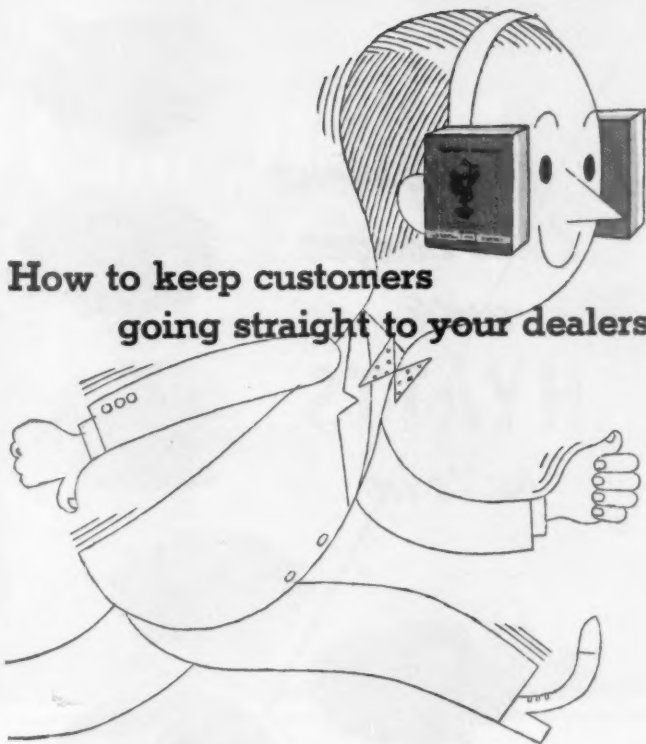
**CINCINNATI**—What started out early this year as a simple battle over the location of a public low-rent housing project may wind up as a substantial change in the City Charter.

The Cincinnati Metropolitan Housing Authority had picked a site on Kirby Rd., in the North Side area, for a 340-unit low-rent project. Its major purpose was to provide homes for present residents of downtown slum areas that are to be razed as part of the city's master plan. Opposition immediately cropped up from two sources: (1) residents of the area, who fear depreciation in property values and an increase in crime and delinquency because of the type of people who would move into the project; and (2) real estate interests and others who oppose any public housing as a matter of principle.

As soon as the site was definitely picked, the opponents got a temporary injunction against the project. They followed that up by forcing onto next week's election ballot a proposed amendment to the charter which would (1) require that any such housing proposal be submitted to the voters at a general election; and (2) forbid the city to accept "payment in lieu of taxes" from public housing projects, if the amount of the payment is less than what "any private person or corporation" would pay as taxes on the same property.

The amendment is considered to have about an even chance of getting

## How to keep customers going straight to your dealers



It's sad when your national advertising gets a prospect primed to buy... and then he buys somebody else's product *because he can't find your dealer.* Keep him on the direct path to *your dealers* with Trade Mark Service in the 'yellow pages' of the telephone directory.

Trade Mark Service displays your trade-mark or brand name in the 'yellow pages' over a list of your local dealers. It can work for you in 36 million directories throughout the nation... or in those covering selected localities.

Tie in your national advertising with a line, "For our local dealers, see the 'yellow pages' of your telephone directory." It's a powerful sales force. Put it to work for you.



For further information call your local telephone business office, or see the latest issue of Standard Rate and Data (Consumer Edition)

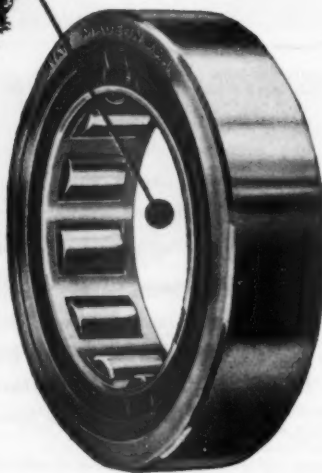
*Equipment  
Lives Longer  
with  
**HYATTS**  
built in*

**M**any of the leading manufacturers of contractors' equipment "build in" Hyatt Roller Bearings for sound dollar-and-cents reasons.

Hyatts help the equipment to operate smoother and longer with less cost for power, lubrication and maintenance.

To tackle the toughest jobs, on the roughest terrain, Hyatts for years have been the preferred roller bearings in such equipment as power shovels, tractors, trenchers, dump-trucks, scraper-loaders, road rollers and portable compressors.

And in all other industrial, agricultural and transportation equipment the name Hyatt is the guide to roller bearings of outstanding performance. Hyatt Bearings Division, General Motors Corporation, Harrison, N. J.



**HYATT ROLLER BEARINGS**

through. Last week the Chamber of Commerce came out against it, but only because its wording, the chamber said, might be used against both private housing developments and such needed public improvements as highways. But the amendment has powerful backing from other interests, including the Real Estate Board and the Home Builders' Assn.

## Irrigation Canal

**HARLINGEN, TEX.**—The international Falcon Dam, across the Rio Grande some 75 mi. below Laredo, will be completed by late next year. Mexico has long since started building canals and other works to carry its share of the irrigation water to where it's needed (BW—Jun. 23 '51, p. 122).

But the U. S. side lagged far behind its Mexican neighbors. There were long arguments over who would build the necessary canal, and where, and how much to spend on it. Finally, everyone seems to have got together.

The canal will be built by a state agency, the Lower Rio Grande Authority; it will be a gravity canal; it will cost \$19-million; it will start downstream, at Anzalduas, between Mission and Reynosa, where Mexico's major diversion canal is also being built. (The U. S. Reclamation Bureau had proposed a \$121-million project, to start at Falcon itself.)

This canal will take care of about 80% of the U. S. irrigated area below Falcon. The McAllen and Edinburg districts, above Anzalduas, will probably have to continue pumping their water directly out of the Rio Grande, since no economically feasible gravity diversion point has been found.

## Recurrent Thirst

**OKLAHOMA CITY**—Early this year, residents of Oklahoma City sat back comfortably, convinced that their water-supply problem had been licked for at least the next 25 years. Today the city faces the possibility of an emergency bond issue to augment the water supply.

Back in 1940, the city spent \$6.9-million to construct a new reservoir, Lake Hefner, to supplement the existing reservoir, Lake Overholser.

In 1950, the voters approved \$10-million in bonds for further water improvements, including a pipeline—completed last week—connecting the two reservoirs.

An almost complete lack of rain over the last several months has brought both reservoirs down to an extremely low level: Lake Hefner, 42,000 acre-feet; Lake Overholser, only 4,800 acre-feet. Reason: Both reservoirs are filled by tapping the North Canadian River,



"DEAD STORAGE" AREA AT NIGHT . . . . . TRANSFORMED INTO ACTIVE MARSHALLING YARD BY G-E OUTDOOR INDUSTRIAL LIGHTING

## Small investment in G-E lighting doubles value of outdoor work areas

**A LIGHT FOR EVERY NEED** is available from G.E.'s full line, for example: **A** High efficiency, lightweight, easy-to-install area floodlight for crossarm mounting, with three beam spreads; **B** Heavy-duty, wide variety of mountings and beam spreads; **C** Inexpensive, open floodlight for closer-range illumination.



You can use your plant's outdoor areas just as efficiently at night as you do during the day by adding outdoor lighting. And the cost of this productive lighting is insignificant compared to your present investment in outdoor work areas.

### SPEED UP MATERIALS HANDLING

Tighter production schedules, congested plant facilities, and many other factors make it necessary for you to handle raw materials, parts, and products at night. With 'round-the-clock "daytime" provided by G-E outdoor lighting, fast, efficient materials handling is made possible, with a minimum of mistakes or damage. In the plant pictured you can see how an area, almost useless in the dark, became a productive asset.

### PROTECT PERSONNEL, PLANT PROPERTY

The right outdoor lighting can pay big dividends in preventing accidents, pilfering and sabotage. But it is important to get lighting that serves your needs best—money spent on inadequate lighting is often wasted. To get more information on General Electric's full line of outdoor lighting for industrial plants, write for bulletin GEA-3640, to Section 451-172, General Electric Company, Schenectady 5, N. Y.

### OUTDOOR INDUSTRIAL LIGHTING

GENERAL  ELECTRIC

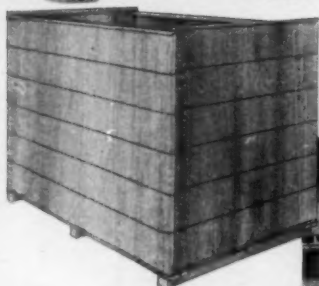


HOW WOULD YOU MOVE THIS

## Pile of Parts?



LIKE THIS?... OR THIS?...



# Generalift

## PALLET BOXES

1. CUT MATERIALS HANDLING COSTS
2. SHARPLY REDUCE STORAGE COSTS

Write for your FREE copy of "The General Box." It shows how to Cut Packing and Shipping Costs.

**DISTRICT OFFICES AND PLANTS:**  
Cincinnati, Denville, N. J., Detroit, East St. Louis, Kansas City, Louisville, Milwaukee, Sheboygan, Winchendon.  
Continental Box Company, Inc., Houston, Dallas.  
General Box Co. of Mississippi, Meridian, Miss.

**General BOX COMPANY**  
engineered shipping containers  
GENERAL OFFICES:  
1805 Minor St., Des Plaines, Illinois



General Wirebound Crate



General Nailed Box



General Corrugated Box



General Cleated Corrugated Container



General All-Bound Box



Generalift Pallet and Pallet Box



General Waiting-Type Box

and, because of the drought, the river is almost dry.

One suggested solution to the immediate problem: Drill wells along the river, where the underground water level is high. This water is very hard, however, and would be expensive to process. Possible long-range solution: Another Hefner-size reservoir to catch and store storm water which in rainy periods now runs downriver unchecked because the present reservoirs can't hold it all.

## Aluminum Fadeout

**CHATTANOOGA**—This city's chance of getting a new primary aluminum plant dimmed last week. The \$70-million plant had been proposed by Gordon P. Street, president of Chattanooga's Wheland Co. Wheland has produced sawmill machinery and oil-field drilling equipment here since 1866; within the past six years it has branched out into gray iron castings and ordnance equipment for the Army.

Street had hoped to build the mill as part of the federal government's third round of domestic aluminum expansion. Also, since Wheland's assets are valued at only \$6-million, he had hoped to get government financial aid. But last week, in Washington, he learned that the government would give him a fast tax write-off and a guaranteed market, nothing more. This meant that he would have to arrange for his own financing and sources of raw materials and power.

Financing is the big problem. Street expects to find out within 30 days if private financing is possible. If it is, he'll be back in Washington again. If not, it looks as if Chattanooga will have to forget the whole rosy dream.

## New Expressways

**COLUMBUS, OHIO**—In common with most other major cities, Columbus has a terrific traffic problem in its downtown business area. A year and a half ago, the citizens approved a bond issue to help pay for a system of expressways (BW-Apr. 21 '51, p100). Last week the City Council took the first big step toward construction.

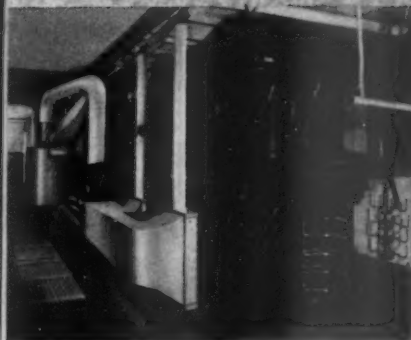
The council authorized the city to enter into a joint setup with the state to develop plans for the expressways. The state will pay 85% of the cost of the plans; the city, 15%. Construction on the first three projects will probably start next spring. They are: (1) extension of one of the principal downtown business streets to a new traffic interchange at the edge of the business district; (2) a new viaduct over the network of rail lines that cut through the heart of the city; and (3) construction of the first sections of a belt freeway that will circle the business district.





KENTWOOD MODEL BY BISSELL CARPET SWEEPER COMPANY

**SWEEPING  
BEAUTY  
THAT PICKS UP  
SALES**



Partial view of the Udylite Full Automatic plating unit in use at Bissell Carpet Sweeper Company.

## **UDYLITE PLATING EQUIPMENT GIVES SPARKLING EYE-APPEAL TO BISSELL SWEEPERS**

DURABLE goods manufacturers have long known that a gleaming metal finish provides a lustre that catches the eye and makes a prospect buy. To meet competition they must produce flawless plating in mass volume at low cost.

Bissell Carpet Sweeper Company, Grand Rapids, Mich., achieved this by turning to Udylite. They report—"Our Udylite Full Automatic plating unit has given us greatly increased

capacity of quality plating with a very substantial decrease in cost!"

Your company, too, can benefit from Udylite's unmatched experience and complete line of precision plating equipment and supplies. Call in a Udylite Technical Man. Let him analyze your operation—and make recommendations. There's no obligation. Phone the nearest Udylite representative today or write to *The Udylite Corporation, Detroit 11, Michigan.*

**PIONEER OF A BETTER WAY IN PLATING . . .**

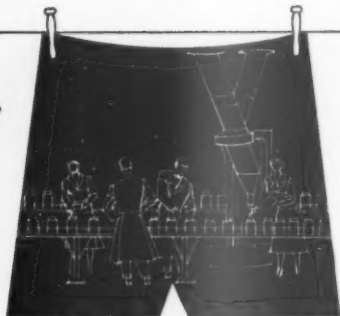
TESTED SOLUTIONS • TAILORED EQUIPMENT  
AUTOMATIC CONTROL IN METAL FINISHING

THE  
**Udylite**  
CORPORATION

# There's no limit



**STOREROOMS**, dried with Alcoa Activated Alumina, protect raw materials and finished products from moisture deterioration.



**PACKAGING AND PROCESSING ROOMS** in food, drug and candy plants are kept at uniform humidities with Alcoa Activated Alumina, to maintain production regardless of the weather.

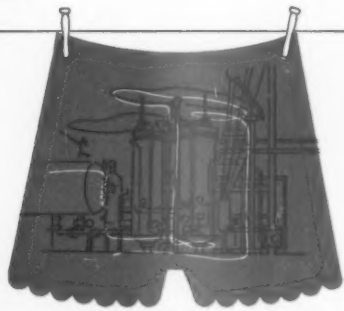
# to what you can dry



**INSTRUMENT AIR**, dried by Alcoa Activated Alumina, prevents freeze-ups and corrosion of outdoor valves, trips and recorders.



**LABORATORIES** testing paper, textiles, chemicals require controlled humidity provided by Alcoa Activated Alumina.



**PETROLEUM PRODUCTS**—liquids, gases or gaseous hydrocarbons—can be dried to minus 100°F dew point—or lower!

## with ALCOA Activated Alumina!

ALCOA Activated Alumina is the "old reliable" in the desiccant field. It dries to lower dew points than other commercial adsorbents. It will not swell, soften or disintegrate . . . can be used over and over again almost indefinitely.

Now *new* and *better* Activated Aluminas are on the way, with improved forms and properties. Let us tell you more about these efficient,

economical desiccants. Write to: ALUMINUM COMPANY OF AMERICA, CHEMICALS DIVISION, 600-L Gulf Building, Pittsburgh 19, Pa.

## Alcoa Chemicals



### ALUMINAS and FLUORIDES

ACTIVATED ALUMINAS • CALCINED ALUMINAS • HYDRATED ALUMINAS • TABULAR ALUMINAS • LOW DEW POINT ALUMINAS  
ALUMINUM FLUORIDE • SODIUM FLUORIDE • SODIUM ACID FLUORIDE • FLUOBORIC ACID • CRYOLITE • GALLIUM

# INTERNATIONAL OUTLOOK

BUSINESS WEEK  
NOVEMBER 1, 1952



Economic relations between the U.S. and its allies will be put on a new basis next year, whatever the outcome Nov. 4.

Up to now foreign aid has been the economic cement binding the Western camp together. Aid has covered the difference between what our friends sell us and what they buy from us.

But huge economic aid can't go on forever. So that means something must be found to take its place.

True, Western Europe has a new slogan that sounds good to Washington—"Trade, not aid." However, a balanced trade between the U.S. and the rest of the free world won't be easy to come by.

That's why financial and trade experts in Washington, London, and Paris are racking their brains these days to find new ways to tackle the problem.

The big Commonwealth pow-wow in London late this month will discuss a plan that's supposed to strengthen the British pound, put the sterling area on a sounder basis.

The idea is to get agreement on the plan among the Commonwealth premiers, then ask the U.S. to back it.

Here are the proposals the experts have cooked up for the London meeting:

- Make sterling and Western European currencies convertible into dollars for current payments.
- Abandon fixed rates of exchange in favor of fluctuating rates with upper and lower limits. For example, the pound might be allowed to move between \$2.30 and \$3. (Supporting a fixed rate under convertibility would take far bigger dollar reserves than supporting a floating rate.)
- Make a joint Commonwealth-Western European bid to the U.S. for a revolving stabilization fund.
- Ask the U.S. to make long-term contracts for raw materials so there wouldn't be the violent swings in commodity prices such as followed Korea.
- Set up a central agency to supervise projects in Asia and Africa.

Meantime Washington is talking of currency stabilization, drastic cuts in U.S. tariffs, new ways of boosting investment in backward countries.

At the moment, such ideas are all at the expert level. But they might influence U.S. policy when the new president takes over.

There's growing support in Washington today for a multibillion dollar stabilization fund.

Officials who back the fund idea argue that it is needed to pad European reserves against fluctuations in U.S. demand for goods from abroad.

But these officials aren't thinking, as the Commonwealth experts are, of a revolving fund that would accept European currencies automatically.

They are thinking in terms of a fund that would go into action only when intervention in the exchange market was needed to prevent a crisis.

There are some new ideas in Washington on how to boost investments in underdeveloped areas.

# INTERNATIONAL OUTLOOK (Continued)

**BUSINESS WEEK**  
**NOVEMBER 1, 1952**

Some officials now start with the assumption that a large part of the development job must be done with **public funds**. And they argue that government loans should not be repaid in dollars. Instead, they should be **paid back in local currencies** that could go into a revolving international development fund.

Under a scheme like that the U.S. payoff would be in expanded markets, bigger supplies of raw materials, and increased stability in the free world.

There's one really radical idea being kicked around in Washington today—a proposal to turn the U.S. into a free-trade nation in 10 years. In the process, domestic industries would be compensated for any damage done by imports.

Here's how this tariff-cutting scheme would work: U.S. tariffs would be cut across the board 10% a year for 10 years—and so the tariff wall would be completely eliminated. Congress would appropriate money each year, perhaps the equivalent of total tariff revenue, to compensate firms that suffered direct damage.

While the West is mulling such ideas, Moscow has begun to put some steam behind its trade offensive.

In the past few weeks the Communists have moved on three fronts:

- In Britain, there's a new outfit, International Trading Assn., to promote trade with the Soviet bloc. It claims to have closed deals, mostly with East European satellites, for \$14-million each way.

- East Berlin now has a China National Export Corp. (There's a branch in London) to push trade with Red China. Deals for \$10-million each way are supposed to have been arranged.

- In Ceylon, the Chinese Communists have offered to buy next year's entire output of rubber. The Reds say they will pay a much higher price than the going rate. Peiping is sweetening its bid with an offer to sell Ceylon some rice.

Ho Chi Minh's new offensive in Indo-China begins to look serious.

The Communists have thrown three well-equipped divisions into the drive. Apparently they aim at taking Hanoi, key to the northern part of the country.

If the Red drive continues, France is bound to grow more restive. The French already feel that they deserve more U.S. and British help in this war theater (page 136).

In fact, this is one of the reasons why Premier Pinay is planning a visit to Washington in January.

Nationalization of Bolivia's tin mines is hanging fire while President Paz Estenssoro and Juan Lechin, Minister of Mines & Petroleum, fight over how much compensation to give the private owners.

Estenssoro wants to woo Washington by being generous. Lechin, who also bosses the tin miners' union, wants to take the tin companies to the cleaners. The fight could lead to new bloodshed in La Paz.

One thing is certain: The U.S. and Britain will hit back if compensation isn't adequate.

Washington would revert to a tough tin procurement policy. London probably would haul Bolivia before the International Court.

His Royal Nibs... **NIBROC® TOWELS**



**PRESTO!**



**CHANGO!**



**BRAVO!**

With NIBROC . . . water disappears from your hands like magic! This gives you economy—for a second towel is not necessary. Because NIBROC towels dry drier faster, washroom traffic is speeded up—particularly during peak load periods . . . lunch and closing time. Tie this in with wet-strength, freedom from lint, softness, and you have the balanced NIBROC towel preferred by more offices, factories, schools, etc., than any other towel. Sold by authorized dealers throughout the United States and Canada. Write Dept. EN-11 Boston, for name of one nearest you.

**BROWN**   
COMPANY, Berlin, New Hampshire  
CORPORATION, La Tuque, Quebec

*General Sales Offices:*

150 Causeway Street, Boston 14, Massachusetts.  
Dominion Square Building, Montreal, Quebec.



## BUSINESS ABROAD



**PACT** Six nations sign a treaty that sets up EDC—a single defense force for Western Europe. Among them is France, which is bothered by a . . .



**MEMORY** of German soldiers marching through Paris. France fears anything that smacks of a German military buildup. That's . . .

# Why France Balks at European Unity

U.S. policy in Western Europe is based on the assumption that France and Germany can forget the past and live together as allies. That's why Washington has backed the Schuman Plan for a coal-steel pool and the Pleven plan for a joint European army. U.S. officials figure that the old hatreds can be buried in these French-inspired international bodies.

But today France is threatening to run out on the European army (European Defense Community) before it is even in operation. One of France's elder statesmen, Edouard Herriot, voiced his opposition to it last week. Like Herriot, more and more Frenchmen are worrying about the revival of German power and about France's ability to match it. This expresses itself either in downright opposition to proposed ties with West Germany, or in a grim determination to wrangle enough concessions from the U.S. so that France can hold its own with the Germans. You can trace both moods back to 1940 when France collapsed almost overnight in the face of Hitler's blitz.

• **Monkey Wrench**—If the French should scuttle EDC, you could write

"finis" right there and then to Washington's present European policy. All plans for rearming Germany and thus for the defense of Western Europe are now based on the joint army plan. U.S. hopes for economic and political unification of Europe are built around it.

As things look now the French will come through in the end. But there's no guarantee of that. And at best, our plans for the European defense buildup have already been put back by anywhere from six months to a year. Ratification of EDC was supposed to come early this fall, recruiting of German forces by early 1953.

• **Opponents**—The really important opposition to EDC in France doesn't come from Herriot, much less from Edouard Daladier, the prewar leader who is ready to dicker with the Russians for a truce in Indo-China and an alliance against Germany.

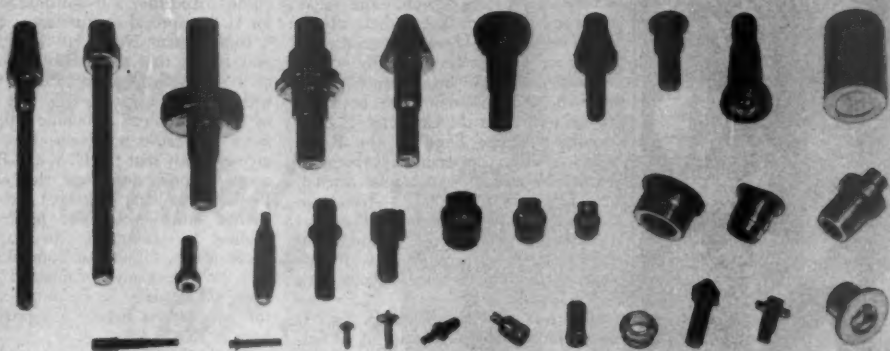
It's the younger political leaders, more preoccupied with European issues, who are forcing Premier Pinay and Foreign Minister Schuman to delay ratification. These men fear German domination of the European army and perhaps eventually of all Western Europe. They say that France today is too

strained by the war in Indo-China, too dependent on U.S. economic support, and too much under fire in North Africa to be able to match growing German strength.

These leaders have been counting all along on strong American support to help balance the scales. But they have been disillusioned by three events: (1) Last month the U.S. told Pinay that next year's aid would be \$125-million less than he had expected; (2) the U.S. voted to give high priority in the United Nations to Tunisian and Moroccan complaints against French rule; and (3) French military upsets in Indo-China aroused a feeling that the U.S. should be helping more in that war theater.

One French official recently summed up the general opinion like this: "Before we climb into the cage with the German tiger we want to be sure we won't be eaten."

• **Hard Bargaining**—The Pinay government is still firmly committed to driving the EDC treaty through the French National Assembly. But Pinay plans a hard round of bargaining with the U.S., and to a lesser extent with Britain, before ratification. The treaty will go to the assembly late in November for

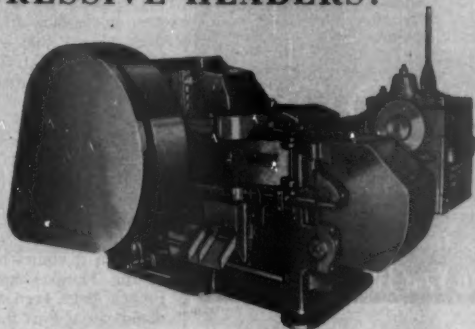


## COLD-FORGE YOUR "GADGETS" ON NATIONAL PROGRESSIVE HEADERS!

**Multi-Station Machine Produces  
Close-Tolerance Parts Seven to  
Fifteen Times Faster Than  
Machining Methods . . . Reduces  
Material Waste Up to 50% . . .**

National Progressive-Type Headers are considered "The Gadget-Makers of Cold-Forging" because their range includes a wide variety of odd-shaped metal parts.

In the Progressive Header Method, the blank is cut off and progressively transferred through two or more sets of punches and dies, producing work previously considered too complex for high-speed cold-forging.



If your work involves double and triple extrusion—or multiple heading in two or more die impressions—then it is especially suited to the National Progressive Header Method.



**THIS DOOR IS ALWAYS OPEN**

Let us help you apply National's experience in hot and cold forging to your jobs. Send us prints or samples of your work, or better yet, pay us a visit. No obligation.

# NATIONAL

**MACHINERY COMPANY**  
TIFFIN, OHIO.

DESIGNERS AND BUILDERS OF MODERN FORGING MACHINES—MAXIPRESSES—COLD HEADERS—AND BOLT, NUT, RIVET, AND WIRE NAIL MACHINERY

Hartford

Detroit

Chicago

*Lightning*  
FAST



Super speed, feather-touch action  
quiet, smooth performance  
symmetric keyboard . . . precision  
built mechanism . . . eye-appealing  
case . . . simplicity of operation —  
only ADDO-X gives you these top  
quality features. Write today for  
complete details.

**ADDO-X**

ADDO MACHINE COMPANY, INC.  
145 West 37th Street, New York 19, N. Y.

## Does Your Secretary Write Your Letters Longhand?

Of course not. She has a typewriter to save time and to work efficiently.

And is her desk also designed to help save time and money? Is your accounting department equipped with the new style desks that reduce time and effort?

Look around your office. If it isn't as efficiently planned and equipped as your production line, you are losing money . . . wasting profit.

Your Indiana Desk dealer will be glad to show you how to plan your office for maximum results, and demonstrate the many new time and effort saving features of Indiana Desks. Write us, if you don't know his name.



*indiana desk co.*  
JASPER, INDIANA • U.S.A.

about three months' study by special committees. The call for ratification isn't planned until March. The Pinay government figures that if dickering in Washington and London succeeds, the treaty will pass in the assembly.

• **Goal**—From the first, French policy viz-a-viz West Germany has been designed to prevent the Germans (1) from regaining a free hand in the Ruhr, which is always an economic threat to France as well as a potential arsenal; and (2) from rebuilding a strong national army. The Schuman Plan was supposed to achieve the first aim and EDC the second. In this way France hoped to maintain a rough balance with West Germany.

But now that the Schuman Plan is in operation and EDC is up for ratification, the French aren't so sure that they have achieved their original goals. They're afraid that the Germans may gradually dominate both bodies. So they want new guarantees of U.S. support as the price for ratification.

• **Demands**—In the case of the coal-steel pool, they are shooting for two things. First, they want assurance from Washington that the Ruhr steel industry won't get such big dollar investments that it can overshadow French steel. Second, they want an agreement over the Saar that will give Paris continued control over steel and coal output in that area. With these two things in the bag, the French would feel easier about matching the Ruhr's economic strength.

When it comes to the military side of the Franco-German equation, the French have even more insistent demands on at least three fronts:

• **North Africa**: Popular as well as official resentment against U.S. policy in North Africa is based on conviction that France must hold on there politically and economically, if it is to remain a big power. So France will ask the U.S. to steer clear of any policies that might weaken French rule in North Africa. That goes for U.S. pressure to open North African markets to U.S. business, no less than for U.S. support of independence movements.

• **France's defense program**: The recent Franco-American flareup over U.S. aid goes deeper than a disagreement over dividing up limited funds. The real problem is how aid funds should be used. The French want to build a balanced armament industry so they can hold their own, within EDC, against Germany's greater industrial potential. For example, the Pinay government would like to use U.S. aid to build up production of tanks and transport planes. So far Washington has refused this on the ground that a balanced arms industry in each big NATO nation would be economically wasteful. Still, the French have decided to use funds

for this purpose—even though it's at the expense of training planned reserve divisions. And they will continue to press for U.S. approval of the move.

• **Indo-China**: Nearly all Frenchmen now believe that their country can't go on carrying the burden of Indo-China without more help. Usually they think in terms of more economic aid. But more and more politicians have been saying openly that the U.S. and Britain must commit troops to the area if France is to hang on. That would let France bring back some professional soldiers to strengthen its European Army forces. Otherwise, some Frenchmen say, Germany's planned 12 divisions will actually be far stronger than the 14 divisions France is supposed to have in EDC.

• **Hard Decision**—These French demands will put the new U.S. Administration in a tough spot. There's no chance that all of them will be met on the terms Paris lays down. The French know that there's a limit to their bargaining position. If worst came to worst, the U.S. could back German rearmament on a national basis, thus creating the very situation the French fear most.

On the other hand, Washington will only adopt such a policy as a last resort. So it's likely that the U.S. will make some concessions to help the Pinay government get ratification for EDC by next spring.

## BUSINESS ABROAD BRIEFS

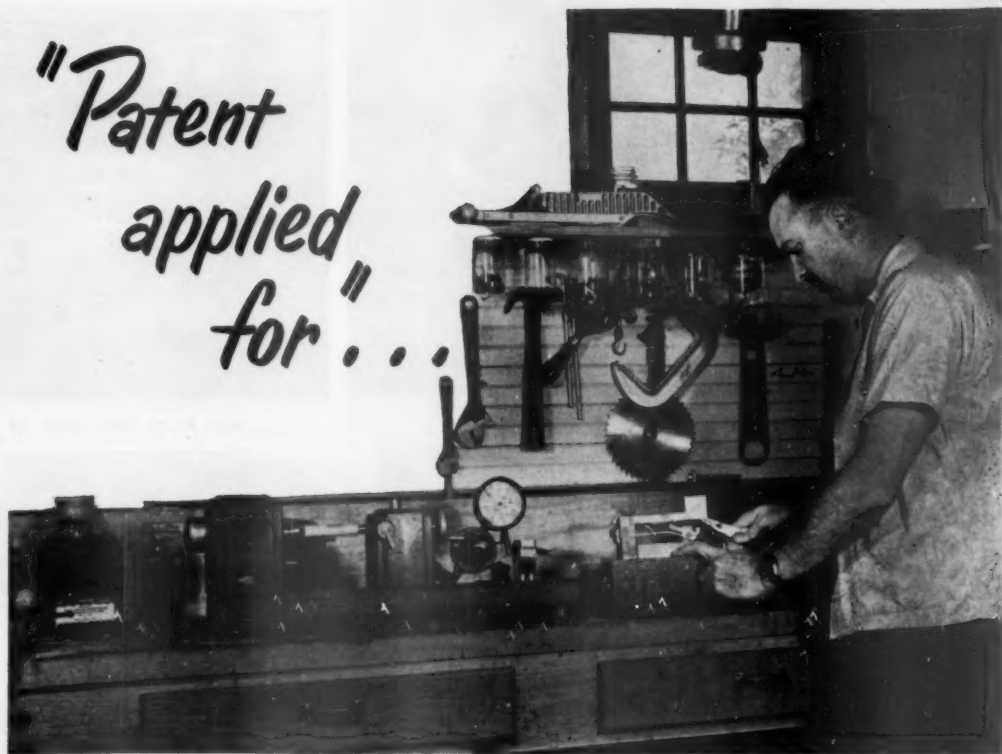
• **New Zealand** plans a £15-million pulp and paper plant. Initial capitalization will be £6-million. The government will put up £1-million as will the sponsors—Fletcher & Co. of New Zealand, Raymond Concrete Pile Co. and Merritt-Chapman & Scott of the U.S. Australian and New Zealand publishers are down for £1-million; the balance is to be raised by public sale of stock.

• **Brazil's Air Ministry** has ordered 70 British Gloster Meteor jets at a cost of more than £5.5-million. The contract also calls for sending a team of specialists to Brazil to assemble the planes and train Brazilian pilots.

• **Sugarless chewing gum** is being produced by Bicolor, a Dutch company located at Delft. Bicolor says the gum is indistinguishable from the real thing.

• **German salesmen** are making an all-out effort to get customers in Turkey and the Middle East. They're offering automobiles, farm machinery, motors, buses, railroads. And they stress low prices, quick delivery, a willingness to change designs.

*"Patent  
applied  
for..."*



You can't *make* a man invent anything. Totalitarian nations and "welfare states" can round up talented men and command them to invent, but it doesn't work.

In this country, men have the incentive to invent because they *want* to invent and because there's a people's market ready to reward them for their work — not just a government ready to take over. Democracy doesn't seize — it protects, so the individual and the people can profit from what he creates, whether it's baby powder, brake lining or bug killer.

That's why the U. S. A. has produced more to make life better than any other nation in history. That's why we have thousands of successful inventors, and just as many more who have not yet "arrived" . . . who wrestle with ideas in laboratories or basement workshops . . . names unknown today but perhaps tomorrow on the lips of the world.

Next time you step on your self-starter, or turn on your television, or walk into an air-conditioned room, or receive a wonderful new drug from your pharmacy, thank God for free enterprise and the United States of America.

"The three great essentials to achieve anything worthwhile are first, hard work; second, stick-to-itiveness; third, common sense".

— THOMAS ALVA EDISON

***Norfolk and Western Railway***

P R E C I S I O N   T R A N S P O R T A T I O N

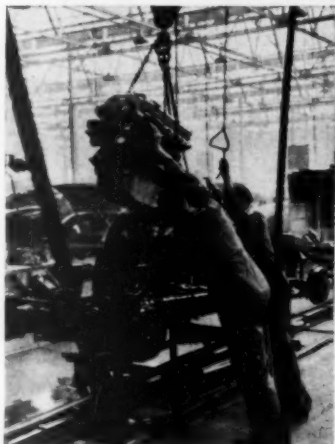




The brains behind the fancy Jaguar XK 120 . . .



. . . also keep their eyes on



Hand Jobs: polishing cam shaft



. . . tuning engine . . .

## Making the Jaguar Britain's



Motor drop



Line assembly approaches mass production methods.





the three standard export models.



... fitting on sun top.

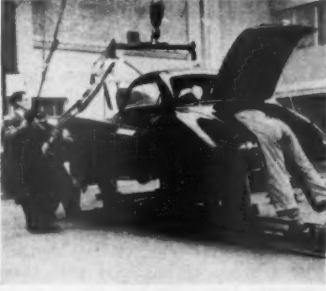
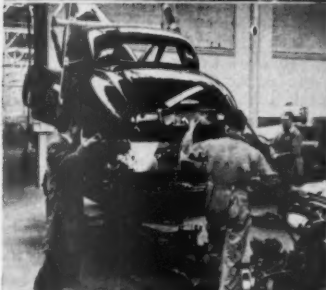
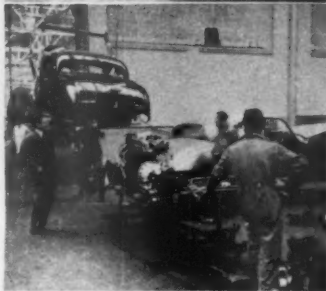
## Hot Export

Britain's hottest export to the U.S. just now is a speedy, \$4,000 streamlined auto—the Jaguar. This year, sales of Jaguars in the U.S. will bring in about \$10-million. Orders for over \$20-million (about 5,000 cars) are already on the books for delivery next year.

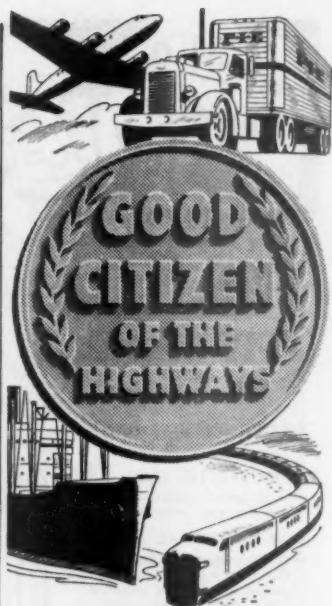
Until 1948, Jaguars were sold almost exclusively in the British specialty market for low-slung, fast sportscars. Then Jaguar came up with a new car, the Mark V, and decided to make a bid for the export market. The bid was successful. Today, about 83% of the production of 200 cars a week is going abroad. British drivers put in orders and wait three or four years before they can get behind the wheel.

• **The Company**—The car that has made such a hit in the U. S. market is made by Jaguar Cars, Ltd., of Coventry—founded and run by William Lyons. The firm has a capital value of about \$4-million and total assets of \$8-million.

Lyons started 31 years ago making streamlined motorcycle sidecars in a



Body drop



## MOTOR FREIGHT a partner in keeping AMERICA STRONG

### "WHEELS of PROGRESS"

New color motion picture  
available for group showings

Clubs, schools, civic groups will find this dramatic film an interesting and informative portrayal of the development and importance of motor freight transportation.

Please write to P-I-E, General Office,  
Dept. BW, for full information

Shippers agree—it's P-I-E!



**P-I-E**  
PACIFIC INTERMOUNTAIN EXPRESS

Chicago • St. Louis • Kansas City • Topeka • Wichita  
Denver • Ogden • Elko • Reno • El Paso • Portland  
Salt Lake City • San Francisco • Los Angeles  
Sacramento • Oakland • San Jose • Stockton  
Sales Offices: Washington, D. C.  
GENERAL OFFICES: 299 ADELPHI STREET  
OAKLAND 20, CALIFORNIA

What! a Pen with a Felt Tip?

**YES—IT'S THE FLO-MASTER FELT-TIPPEN**

**WRITES ON ANYTHING**  
—glass, metal, cloth, wood

**WITH SPECIAL INKS**  
—in all colors—instant-drying  
—non-smudging, waterproof

**FOR INDUSTRIAL MARKING**  
—of parts for assembly or storage, metal containers, plastic casings, etc., in the shipping room on boxes, crates, cartons, etc.

The Flo-master is rapidly replacing crayons, paint and tags. It's simple to use, always ready and has proved more economical.

Available in both Pocket and King size  
—at stationers, art stores. Write for descriptive folder to Cushman & Denison Mfg. Co., Dept. BW-5, 133 W. 23rd St., N.Y. 11, N.Y.

**POCKET SIZE**

4 1/4 in. long—  
2 assorted nibs

**\$3.00\***

\* Higher in West and Canada

**SHIPPING FARM EQUIPMENT?**

Cut packaging costs! Cut shipping costs! Prevent damage!

Do as other leading manufacturers of agricultural equipment.

Use **TEKWOOD**... tough, versatile, low-cost Tekwood... the Kraftpaper-and-hardwood sandwich.

With Tekwood, you avoid using a lot of expensive lumber, cut labor assembly, too.

Tekwood is light... strong... durable. Won't shatter or splinter. Puncture-proof. Easy to work and handle. Hard to hurt. Meets military specifications. Send for sample and details.



**UNITED STATES PLYWOOD CORPORATION**

55 West 44th St., New York 36, N.Y.  
World's largest plywood organization  
\* U. S. Pat. No. 1977446, T. M. Reg.

See Clues on page 170.



William Lyons fathered the Jaguar 21 years ago.

small workshop in his hometown, Blackpool. Then he went to work for Austin, designing "sporting" bodies for a young man's version of the midget Austin.

In 1931 Lyons put his name before the public by showing his own car, called the Swallow, at the London Automobile show. It went clean against the high, boxlike design of the other cars on display. It was low and long and appealed to a British public that has always been addicted to auto racing and fast cars.

Encouraged by the reception, Lyons set up a company called SS cars (for Swallow Special). Hitler soon took over those initials for his own purposes, so Lyons changed the name to Jaguar. The first Jaguar was made in 1936 as a sportscar—a two-seater with lots of power under the hood.

**Wider Horizons**—A new engine put out in 1948 lifted Jaguars right out of the British specialty field. The engine, named the XK, is a 160-hp., 6-cylinder powerhouse that has enabled the standard sportscar to hit test speeds of 125 mph. A special feature is the twin overhead camshafts—a rare item, expensive to make, and unsuited to mass production. Jaguars are not mass-produced in the American sense. On the other hand they're not hand-made like the Rolls Royce.

The XK provides the power for the three Jaguar models now on the market—the Mark VII four-door sedan, the open and closed versions of the XK 120 sportscar. Only exception is the XK 120-C, a new sportscar with a 210-hp. engine. That car is still primarily for racing and display, although a few special orders are being filled.

**Joint Effort**—The XK was designed by a group of engineers that Lyons brought back with him after a stretch of wartime aircraft work. "Group" is

about as specific as you can get in giving out credit for Jaguar engine and body designs. As Lyons puts it: "We are a team, each gives all he has."

There's no doubt, though, that Lyons calls the signals for every play the team makes. He has a skilled corps of engine designers. But the final responsibility is his own. And body designs usually originate in clay models that he evolves himself.

Of the 200 Jaguars that Lyons is turning out every week, two-thirds are sedans. That's partly in deference to the U. S. market where Jaguar sedans outsell sportscars by three to two.

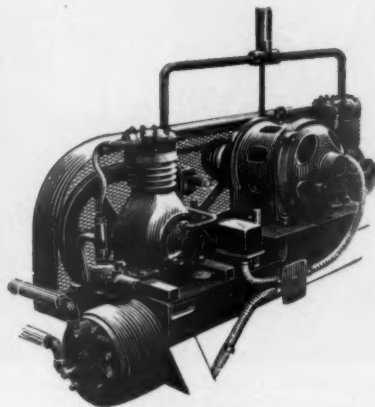
**Tanks, Too**—The Jaguar plant at Coventry, which employs about 3,000 workers, is leased from the government. It's new and big (1-million sq. ft.), and could produce a lot more than 200 cars a week. But Jaguar has to devote some of its facilities to making tanks, and there's a steel shortage.

This doesn't worry Lyons much, since he's not dreaming of mass production. He builds cars for car lovers like himself. That's why his main interest now is probably his new XK 120-C, the speedster that helped him get this year's Royal Automobile Club trophy for outstanding engineering achievement.

**The Pictures**—Cover by David Linton. Bryson Studio—146, 147; Bill Clinkscales—58; Wilfred Doucette—94, 95; European—136 (lt.); Martin Harris—62, 63, 64; Bob Isear—78, 79, 80, 81; David Linton—43 (top lt.); Bernard Newman—140, 141, 142; Edward Ozern—53; United Press—34 (top lt.), 46, 144 (lt.); Wide World—34 (top rt., bot.), 136 (rt.), 144 (rt.).



THIS SETTLING VAT..



THIS 5-H.P. "FREON" REFRIGERATING MACHINE

## SAVES manufacturer 480 hours

CAN MODERN REFRIGERATION HELP YOU, TOO?



Industries of all kinds today are using refrigeration and air conditioning in many different ways...often with spectacular results. For example:

A large manufacturer of soap required three weeks to produce a clear liquid product. Engineers studied the production problem...solved it by designing a method of cooling soap ingredients. Now the operation takes only 24 hours...saving 20 days! In addition, curing and storing tanks that were no longer needed in the plant made valuable space available for other purposes.

Scores of manufacturers are now

putting refrigeration and air conditioning to work in their plants. They're stepping up production...lowering costs...improving product quality...promoting employee comfort and efficiency...increasing profits.

Perhaps you could do the same. Why not talk it over with others in your plant or office? Installation of an air conditioning or refrigeration system might well increase your profits substantially and bring you many other benefits.

And when the details of a system are reviewed...bear in mind that most modern installations are operated with "Freon" refrigerants. These

refrigerants are safe...noncombustible, nonexplosive, virtually non-toxic, and their amazing purity insures dependable, economical performance of the equipment over a long period of time. A new book, "How Air Conditioning and Refrigeration Benefit Industry," will be sent upon your request. E. I. du Pont de Nemours & Co. (Inc.), "Kinetic" Chemicals Division, 7524C Nemours Building, Wilmington 98, Delaware.

## "FREON" SAFE REFRIGERANTS



REG. U.S. PAT. OFF.

150th Anniversary

BETTER THINGS FOR BETTER LIVING  
... THROUGH CHEMISTRY



"Freon" is Du Pont's registered trade-mark  
for its fluorinated hydrocarbon refrigerants.

# LABOR



**WHISTLE STOPPER** Truman beams at Pennsylvania miners. Back in Washington, he arranged parity to end coal strike.



**AT WHITE HOUSE**, mine owners' Moses (left), miners' Lewis, officials Steelman, Cole, Putnam reached agreement. So . . .

## Miners Dig Democrats out of a Hole

**Return to coal pits as Lewis accepts promise that White House will consider WSB cut in promised raise.**

Coal moved from bituminous mines again this week as John L. Lewis' miners returned to work after a week-long walkout. Technically, the return is only a recess in their strike over a 40¢ slash by the Wage Stabilization Board in the miners' negotiated \$1.90-a-day raise. Work is being resumed while the WSB pay-paring decision gets "careful consideration" at the White House.

Nobody seems to be worrying about a possibility that the work resumption won't last. This appears pretty clear:

The imminence of next Tuesday's presidential election accomplished something that a Taft-Hartley injunction couldn't do two years ago: It got Lewis to call off a coal strike.

• **Quid Pro Quo**—In return, the United Mine Workers will very likely get back the 40¢ WSB lopped off the \$1.90 wage hike provided for in Lewis' new contracts with bituminous operators.

The only real questions are: When will they get it back? And how?

Last week, President Truman visited coal towns in his whistle stop campaign in behalf of Democratic candidates. He got a generally enthusiastic reception (picture above) but found the coal strike and WSB's decision were breeding trouble—economic and political.

He returned to Washington for the weekend. While he was there, a hurriedly arranged Sunday night conference brought together key figures in the coal dispute: the President, Lewis, and in-

dustrial and government representatives. After a short resume of the situation, the President got Lewis' assurances of cooperation—meaning a work resumption—while an appeal from WSB's decision could be processed.

If Truman and his aides did not make a "deal" with Lewis—and they insist that they did not—at least Lewis is convinced that he has a moral promise that the government will approve the full wage increase. Lewis is not in the habit of giving in to presidential prodding without something definite to shoot for it.

• **Deal or Not**—A strong smell of politics stems from the coal case, even if there is no "deal":

• Truman involved himself in the coal strike long before an emergency was threatened (BW—Oct. 25 '52, p. 165). Coal stockpiles, averaging 77 days' supply, were at record high levels. Only the miners—and the Democrats—were really being hurt.

• Lewis and his UMW were backing the Democratic candidate, Gov. Stevenson, yet were hurting his chances of carrying Pennsylvania, West Virginia, and Illinois, where the UMW vote is influential.

• Ending the strike before the election and deciding the issue afterward was perfect political timing designed to help Stevenson. Reversing WSB and approving the full \$1.90 raise before the election—if that turns out to be the decision—would have lost Stevenson

votes through charges of selling out to labor.

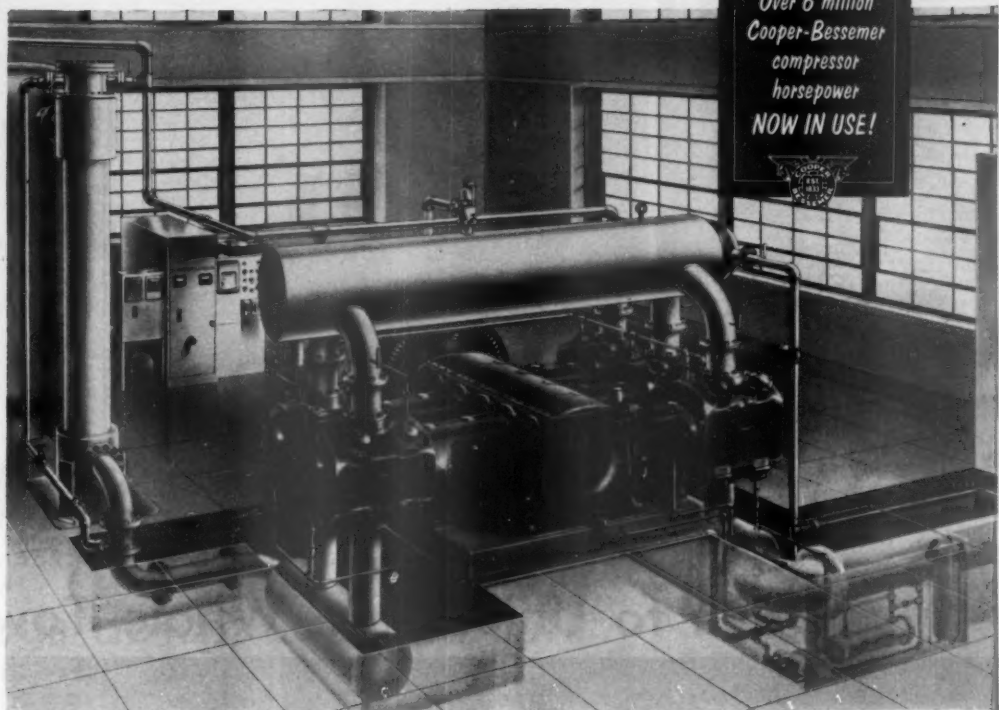
• **Cole Acts**—The White House meeting with Truman was arranged by the new director of the Federal Mediation & Conciliation Service, David L. Cole. Cole already had made considerable progress by getting Lewis to join with Harry M. Moses, head of the Bituminous Coal Operators Assn., in appealing WSB's decision.

Lewis had met on Friday with Economic Stabilizer Roger L. Putnam, and had left the meeting with the impression, if not the promise, that Putnam would get WSB's public members to change their vote. This would result in a public-labor majority approving the \$1.90 raise. Putnam saw the WSB public members Saturday morning. They were reluctant to back down. After that, Cole arranged the session with Truman.

All reports are that Truman promised Lewis and Moses nothing but a "fair" early consideration of their appeal. Truman also said he thought the miners should be working in the meanwhile.

• **Decision**—At midweek it had not been decided who would make the decision on the appeal. Putnam said he might make it himself, leave it up to WSB, or refer it "higher up" to Truman. He planned to discuss procedure with WSB after receiving supplemental information from BCOA intended to justify approval. Whatever the decision, repercussions are likely to follow. If Lewis is not pacified, the strike will be resumed with Lewis no doubt charging "double-cross." If the increase is allowed, there will be little left of wage stabilization.





Over 6 million  
Cooper-Bessemer  
compressor  
horsepower  
NOW IN USE!

## Recommended setup FOR SHOP AIR AT LOWEST COST!

**T**HE above illustration shows a modern air compressor installation completely equipped with controls capable of functioning efficiently under all plant air requirements.

This opposed-action unit is one of the latest Cooper-Bessemer motor-driven compressor designs and is rated 1,000 hp, delivering 5,000 CFM at 100 lbs. operating pressure. The Cooper-Bessemer opposed-action design contributes to space-saving compactness, vibration-free operation and long life. Note also that in this setup pulsation dampers are located on all suction and discharge lines, and that all controls are localized on a single panel for maximum compactness and convenience. Finally, space requirements, piping and line losses are minimized with a single overhead intercooler.

*Whatever your requirements for air, Cooper-Bessemer engineers will be glad to work with you and help you come up with more air . . . in less space . . . at lowest cost.*



New York • Chicago • Washington • San Francisco • Los Angeles •  
San Diego • Houston • Dallas • Odessa • Tampa • Graggien •  
Seattle • Tulsa • St. Louis • Gloucester • New Orleans • Shreveport  
Cooper-Bessemer of Canada, Ltd., Halifax, N. S.





**UMW** charter for District 50, the miners' catchall, hit . . .



**QUIET MAIN STREET** of Central City, Ky., like a bomb. Union tried to organize everybody. Resistance brought . . .

## Drive to Unionize a Whole Town



**SOME STORES** have signed contracts with District 50, as protective sign shows.



**OTHERS** held out despite picketing violence. A few were forced to sell out, leave town.



## MASS PICKETING

Explosions and shooting marked the peak of bitter struggle, which finally simmered down. But . . .

# Bogs down, Leaves Scars

Central City, Ky., population 4,110, could be Anytown, U.S.A. It has a main street that is practically the whole shopping section; a typical quiet, slow manner of life. People look just about as they do in any other small community.

Probably Central City has only one distinction, and one not of its choosing. Because the town is in the Kentucky coal fields, District 50 of the United Mine Workers picked it for a major drive. Organizers set out to unionize everybody who works—from shoeshine boys to clerks, beauty parlor and filling station attendants, and even small merchants.

As a result, Central City is quiet only on the surface. Beneath, there is disquiet and uncertainty. District 50's organizing efforts are hardly noticeable now—weighted down by 44 injunctions barring picketing—but trouble could flare up. Central City today is uneasy, coldly suspicious, and scarred.

• **Repetition**—The important thing is this: What happened in Central City and the aftermath could happen in any small town where one union considers itself really strong.

In Central City, District 50 expected easy pickings. Much of the town's business is with miners and families living on UMW pensions. Organizers figured that all they had to do was interest employees in joining District 50. If

employers balked, the union could threaten to shut off their business through miner-reinforced picket lines. The union expected no real opposition—but it ran into plenty of it.

At the start, organizers had little trouble in getting people to sign up.

Clerical wages are low in Central City, as in any small town; workers are hardpressed to meet rising living costs.

But employers balked at signing contracts. When they did, the quiet broke in Central City. A union organizer's car was dynamited—so was a merchant's small frame warehouse. There was a gunfire incident, a stink bombing, fist fights, and other violence. Merchants began doing business with revolvers close at hand. Picket lines jammed streets in front of stores, and at times invaded the stores themselves.

Merchants blamed the union, complaining that outbreaks started because District 50's organizers were "arrogant" and "behaved like thugs." The union said merchants sparked the trouble.

• **Reaction**—Whoever was to blame, the violence reacted against the union. Many employees withdrew from District 50; others who hadn't joined formed a "We the Workers" organization opposed to the union. The public resented the rowdy picket lines. Merchants cited the violence in a concerted court attack on union tactics, leading to the 44 anti-picketing injunctions—one



# Never Naps-

Minute nappers haven't a

chance with an ever watchful

Stromberg time recorder on

guard. Make your time watching

automatic, constant and

sure. Write for a copy of

"for every working minute".



## JUNIOR

Keeps payrolls for thousands of firms. Complete in every detail and priced within reach of the smallest.



INDIVIDUAL \_\_\_\_\_  
COMPANY \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY, STATE \_\_\_\_\_



**4,000,000 PER DAY**

**MOST MODERN LABEL PLANT IN AMERICA**  
Complete air conditioning and high speed, automatic equipment give us the edge—**BETTER** quality, **FASTER** delivery and **ATTRACTIVE** price on practically any paper label job. Let us demonstrate. Write for quotation today. **KALAMAZOO LABEL CO., 301 W. Ransom, Kalamazoo, Mich.**

**AMERICA'S**  
**greatest supply of**  
**fresh, soft, low-cost**

**WATER**  
**FOR INDUSTRY**

with ideal climate at  
**CHARLESTON, S.C.**

For specific data:  
Write Arthur M. Field, Chief  
Engineer, **CHARLESTON**  
**DEVELOPMENT BOARD**

**HERCULES**  
MEILINK BUILT

**One-Hour Furnace Tested**  
**Vertical Letter**  
**VAULT**  
For name of nearest dealer, write  
**MEILINK STEEL SAFE CO.**  
**DEPT. B-11**  
**TOLEDO 6, OHIO**

**The miracle motor**  
**U. S. VARIDRIVE**  
2 to 10,000 RPM  
Write for descriptive Bulletin 1515BW  
**U. S. ELECTRICAL MOTORS INC.**  
Box 2058, Los Angeles 54, Calif.

for almost every unorganized employer.

The violence attracted national attention. In particular, business interest focused on the union drive. Moral, and perhaps more substantial, support piled up behind the resisting merchants.

Altogether, the opposition was too much. District 50 drew back its lines, to defend its gains—some merchants signed, mostly small ones—and to bide its time for a new attack.

District 50 sources privately admit that organizers botched the job by crude behavior in some instances—even though they claim the "real trouble" was caused by merchants or their overzealous friends, or by union foes, or perhaps just hotheads.

A. D. (Denny) Lewis, president of the catchall District 50 and brother of John L., holds Peter Schneider, the union's regional director at Nashville, technically responsible for the union setback. Schneider gave an important role in the organizing drive to a man with a felony conviction and a "tough guy" approach to his job. Lewis says the chip got knocked off—and the union suffered.

• **Comparison**—Apart from the organizers' behavior, and the merchants' resistance, the union sees nothing really unusual about the Central City drive. It says that it has organized workers in other small towns without incidents. It cites Hopewell, Va., as an example.

The parallel is not exact. In Hopewell, a community of 10,200, District 50 organized all sizable industrial

plants. Barbers chose District 50 to represent them—asking for a union charter; District 50 had made no effort to get them in. One print shop and one plumbing firm are under District 50 contract. Retail clerks are not.

• **Difference**—In Central City, on the other hand, District 50 made all the moves and attempted to bring everybody into the union—including a few small merchants having no employees. This is a difference that District 50 minimizes, but that the Kentucky town's merchants and outside businessmen consider important.

It has prompted Laurence F. Lee, president of the Chamber of Commerce of the United States, to describe Central City as "a grim lesson for every American businessman. . . . What happened to the merchants of that town when a powerful labor union unleashed a new kind of campaign—a campaign that was clearly outside the law and outside the policy of enlightened labor leadership—might well happen, in some form or another, in almost any community."

Lee warned that Central City might be a testing ground for a new kind of top-to-bottom union operation. Whether it is strictly a one-shot move, or not, this is pretty certain: Unless the next Congress is strongly pro-labor, the Central City story is quite likely to come up on Capitol Hill in 1953, in support of demands for antimonopoly laws directed against industrywide unions.

## Shoring up the Floor under Wages

**C-of-l index drop finds unions trying to make sure they won't be caught on a down trip of the escalator.**

Scattered cost-of-living wage adjustments may result from the Bureau of Labor Statistics' mid-September index (chart, page 150). But the importance of this index lies more in its effect on union bargaining goals, than on pay.

The latest index is down 0.9-point to 191.4 on the unrevised basis still in general use in industrial relations. It is a scant 0.3-point over the mid-June figure of 191.1, but even that is enough to cause a few 1¢ pay hikes among some 40,000 workers with quarterly c-of-l adjustments in September.

Food prices strongly influenced the latest index drop. They are still settling. This may cause another drop in mid-October figures—and at least a 1¢ pay cut for 1-million auto and electrical-manufacturing workers.

• **Keeping Tabs**—The declines in BLS' index may be temporary. Still, recent bargaining developments, including a Douglas Aircraft Co. contract signed two weeks ago, show that unions have

their eyes on the downward movement.

As long as the index was moving only one way—sharply upward—unions generally were content to sign escalator contracts of the General Motors type. This specifies that c-of-l adjustments upward are in the nature of a bonus, not a hike in regular pay.

Unions accepted this provision. They figured that new negotiations could be opened to cushion workers if hard drops seemed to be coming.

Now unions think the time has come for new talks on c-of-l clauses. They are out to guard wages against getting caught on an escalator going down.

• **High Floor**—The United Auto Workers (CIO) is using one approach: high wage floors under escalator contracts. It got such an adjustment at North American Aviation (BW—Jul.26'52, p116). It is now trying to get major automotive companies to incorporate 21¢ of their present 26¢ cost-of-living bonus in regular rates (BW—Sep.27

because Your buildings are different...

## BARRELED SUNLIGHT

Gives you this NEW  
**ENGINEERED  
COLOR PLAN**



Make no mistake about it, *your* buildings are different . . . and that goes for all factories, all office buildings, all hotels, schools, hospitals — *every* type of building.

And Barreled Sunlight has found, through more than half a century of specialization in maintenance paint-making, that no cut and dried color schemes apply across the board.

Your buildings are not like anyone else's. They have their own particular problems. And to get the best results . . . *in every respect* . . . *your* color plan and *your* painting plan must be *engineered* to meet all *your* particular requirements.



That is why, after years and years of scientific study, Barreled Sunlight offers you this new *Engineered Color* plan . . . a modern plan that goes far beyond the realm of mere "interior decoration."

Find out about it. It's the last word in the use of the *first name in paints* — Barreled Sunlight.

Write today on your company letterhead for your free copy of the Barreled Sunlight "Engineered Color" Catalog.

**BARRELED SUNLIGHT PAINT COMPANY**  
1-K Dudley St., Providence 1, R. I.

## Barreled Sunlight

### *Paints*

In whitest white or clean, clear, wanted colors, there's a Barreled Sunlight Paint for every job

For over half a century those who know the best in paints . . . for all types of buildings . . . have strongly insisted on famous Barreled Sunlight



# FREE TO EXECUTIVES!

Tells How

## To Keep Prospects Reminded With Autopoint BUSINESS GIFTS

New "Autopoint" Combination Matching Ball Point Pen and Pencil Set



New "Autopoint" PLASTIC BILLFOLDS

Simulated Pin Seal Lizard and Alligator Grains

Send now for this booklet of "Your 37 Sales Plans" showing how "Autopoint" inexpensive Business Gifts build good will, get you more sales at less cost, keep customers repeating.

Used and praised by leading sales executives, this booklet gives you 37 tried and proved ways to make useful "Autopoint" Gifts pay dividends. Mail coupon for your free copy and Catalog of gifts that get the business.

### How To Cut Your Firm's Pencil Costs IN HALF!

Let us show you how. Famous "Autopoint" Pencils for Organization use save pencil sharpening time, give you greater efficiency—can cut your pencil costs IN HALF! Check coupon.

"Autopoint" is a trademark of Autopoint Co., Chicago

### MAIL COUPON FOR FREE BOOKLET

AUTOPOINT CO., Dept. BW-11, Chicago 40, Ill.  
Send free copy of booklet "Your 37 Sales Plans" and catalog of "Autopoint" Business Gifts.  
☐ Send money-saving facts and quantity prices on "Autopoint" Pencils for Organization Use.

Name \_\_\_\_\_  
Company \_\_\_\_\_  
Position \_\_\_\_\_  
Street Address \_\_\_\_\_  
City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_  
☐ Check here to have representative call.

'52,p142). Companies are balking.  
• Movable Ceiling—Douglas Aircraft and the International Assn. of Machinists took a different approach in a new contract covering the El Segundo, Calif., plant. Company and union agreed on a 5¢ hourly raise, added a 2¢ c-of-l allowance to regular pay, and set up a new escalator plan—one tailored, they say, to fit a rising or falling c-of-l with a minimum of hardships on everyone.

Wages will still be adjusted quarterly. Future c-of-l raises (1¢ in pay for each 1.14-point rise in living costs) will be added to the scheduled top rate for each job, to be a permanent part of the rate. Workers will also have the c-of-l increase added to whatever wage they are receiving.

If the c-of-l goes down, the workers' pay drops with it—but the scheduled rates stick at the highest level they have reached. So workers get less than scheduled rates, and an automatic progression system begins operating.

This system provides for 5¢ raises every 16 weeks until workers reach the top rate for each job.

• How It Works—The escalator-wage progression plan works like this:

Workers in the top-job classification

at El Segundo now get \$2.38 an hour. Suppose the c-of-l goes up enough in a 3-month period to call for a 2¢ wage adjustment. The top job classification will then call for \$2.40 an hour, an amount that can't be cut no matter how far the c-of-l drops.

Then suppose a series of sharp c-of-l drops calls for a 5¢ pay reduction. Workers in the top job classification will then be paid \$2.35 an hour—5¢ less than the scheduled \$2.40 rate for their classification. Since they are below the scheduled rate, they come automatically into the wage-progression program. And so they get a 5¢ raise after a 16-week period, and they're back to \$2.40.

If the cut due to a c-of-l drop was only 2¢, they would get just the 2¢ at the next progression. If they'd lost more than 5¢, they would continue getting 5¢ raises at 16-week periods until they got back to \$2.40 an hour.

Workers getting less than top rates would already be getting progression raises. Say they had risen to \$2.33 an hour (when the top rate stood at \$2.40) and then got cut 5¢, to \$2.28. They'd get back to \$2.33 at the next progression and, barring further c-of-l cuts, would continue to the top rate in two more 16-week periods.


## What's Happening to the Cost of Living

	Total Cost of Living		Food		Clothing		Rent	
	Old	New	Old	New	Old	New	Old	New
September, 1941 ..	108.1		110.8		110.8		106.8	
September, 1942 ..	117.8		126.6		125.8		108.0	
September, 1943 ..	123.9		137.4		132.5		108.0	
September, 1944 ..	126.5		137.0		141.4		108.2	
September, 1945 ..	128.9		139.4		148.2		108.3	
September, 1946 ..	145.9		174.1		165.9		108.8	
September, 1947 ..	163.8		203.5		187.6		113.6	
September, 1948 ..	174.5		215.2		201.0		118.5	
September, 1949 ..	169.6		204.2		187.2		121.2	
January, 1950 ....	166.9	168.2	196.0	196.0	185.0	185.0	122.6	129.4
September, 1950 ..	173.8	174.6	208.5	210.0	190.5	189.8	124.8	131.8
January, 1951 ....	181.6	181.5	221.6	221.9	199.7	198.5	126.0	133.2
September, 1951 ..	186.5	186.6	226.3	227.3	210.7	209.0	130.0	137.5
October .....	187.8	187.4	229.2	229.2	211.0	208.9	130.6	138.2
November .....	189.3	188.6	232.1	231.4	209.9	207.6	131.4	138.9
December .....	190.0	189.1	233.9	232.2	209.1	206.8	131.8	139.2
January, 1952 ....	190.2	189.1	234.6	232.4	206.7	204.6	132.2	139.7
February .....	188.3	187.9	229.1	227.5	206.1	204.3	132.8	140.2
March .....	188.4	188.0	229.2	227.6	205.6	203.5	132.9	140.5
April .....	189.6	188.7	232.3	230.0	205.0	202.7	133.2	140.8
May .....	190.4	189.0	234.6	230.8	204.4	202.3	133.7	141.3
June .....	191.1	189.6	236.0	231.5	204.0	202.0	134.0	141.6
July .....	192.4	190.8	239.1	234.9	203.3	201.4	134.3	141.9
August .....	192.3	191.1	238.4	235.5	202.7	201.1	134.7	142.3
Sept., 1952 ....	191.4	190.8	234.7	233.2	203.6	202.3	134.7	142.4

\*BLS has revised its formula for computing the cost-of-living index (BW-Mar, 10, '51, p112). Since the old index is still widely used in labor-management bargaining, BLS will continue issuing both sets of figures at least through 1952.

Data: U. S. Bureau of Labor Statistics.





how high?

40,000 feet up, bucking the sonic barrier can be a "breath-taking" experience... one reason why jet pilots require medically pure Airco oxygen.

how low?

Down, down, 14,000 feet or more, to the oil-bearing depths, through rock and shale and abrasive sands... Airco hardfacing alloys "spearhead" the whirling bits of an oil well drill string.

at the frontiers of progress you'll find



From supplying the vital breath of high altitude aviation... to toughening the drills that bore miles into the earth's crust — Air Reduction products span an incredible range of industrial applications!

Just review the requirements of American industry: from basic chemicals and gases... to the hand tools and precision machinery used to weld, cut and shape metal parts... in fields as remote as textiles and turboprops... you'll find the Air Reduction Company improving the products and processes of today... and contributing to the discoveries of tomorrow.

In fact, wherever progress is racing ahead to new frontiers, you'll find an *Air Reduction Product*.

Divisions of Air Reduction Company, Incorporated,  
AIR REDUCTION SALES COMPANY, AIR  
REDUCTION PACIFIC COMPANY, AIR RE-  
DUCTION MAGNOLIA COMPANY... *Indus-  
trial Gases, Welding and Cutting Equipment*  
• AIRCO EQUIPMENT MANUFACTURING  
DIVISION • NATIONAL CARBIDE COM-  
PANY... *Calcium Carbide* • OHIO CHEMI-  
CAL & SURGICAL EQUIPMENT CO.,  
OHIO CHEMICAL PACIFIC COMPANY...  
*Medical Gases and Apparatus — Hospital  
Equipment* • PURE CARBONIC COMPANY  
... *Carbonic Gas and "Dry-Ice"* • AIRCO  
COMPANY INTERNATIONAL... *Export* • AIR  
REDUCTION CHEMICAL COMPANY...  
*Tertiary Acetylenic Alcohols and Glycols*



**AIR REDUCTION COMPANY, INCORPORATED**

60 EAST 42nd STREET • NEW YORK 17, N. Y.



## **LOG OF PROGRESS...**

The Chinese used bamboo and mulberry bark to make paper. Its history runs through Samarkand, Greece, Morocco, Spain . . . and on to France, Germany, England, America. And, over the centuries, education, culture, progress, have been as inextricably linked with paper as the fibers with which it is made.

In the early eighteen-hundreds it was tough for the average mill to produce a few reams of paper per day. Today's mills turn it out in tons . . . and in over 175 types.

## **WHAT MADE THE DIFFERENCE...**

Partly the discovery of how to make wood into paper . . . partly America's great resources of wood, water, metals, chemicals and power. But principally America's insatiable desire to do things better . . . coupled with the ingenuity to create . . . the ability to coordinate skills . . . the willingness to cooperate in the attainment of a common goal.

## **AMERICA WORKS LIKE THAT...**

The cooperative efforts of the papermaking and graphic arts industries have given us finer paper for books, newspapers, magazines . . . the means by which ideas are kept in motion.

And bringing you the printed word is the job of America's all-seeing, all-hearing and reporting Inter-Communications System.

## **THE AMERICAN INTER-COM SYSTEM...**

Complete communication is the function, the unique contribution of the American business press . . . a great group of specially edited magazines devoted to the specialized work areas of men who want to manage better, design better, manufacture better, research better, sell better, buy better.


## **COMMUNICATION IS OUR BUSINESS...**

The McGraw-Hill publications are a part of this American Inter-Communications System.

As publishers, we know the consuming insistence of editors on analyzing, interpreting and reporting worthwhile ideas. We know that businessmen, in order to keep abreast of their jobs, subscribe to—pay for—McGraw-Hill magazines edited for their specific business interests.

And, as publishers, we make the advertising pages of our magazines available to advertisers for featuring the products and services they offer in the interest of increased efficiency and lower production costs.

. . . for the editorial pages tell "how" and the advertising pages tell "with what."

"See you at the polls"  NOV. 4<sup>th</sup>

**McGRAW-HILL PUBLISHING COMPANY, INC.**

330 WEST 42nd STREET, NEW YORK 36, N. Y.



HEADQUARTERS FOR BUSINESS INFORMATION





Companies that manufacture all types of products from band saws to twist drills and glass molds to coining dies have come to appreciate the kind of service they get at Jessop. Back of every order is a new system of *quality control* and *use analysis* designed to make sure that each steel is tailored to its exact application. If your organization employs the use of special steels, you'll find it pleasant and profitable to call on a vigorous and ambitious concern that wants your patronage on the basis of merit and is willing to go out of its way to keep it. Write to us.

HIGH SPEED STEELS • HIGH SPEED BITS • PRECISION  
GROUND FLAT STOCK • HIGH SPEED AND ALLOY SAW  
STEELS • HOT WORK DIE STEELS • COLD WORK  
DIE STEELS • CARBON AND ALLOY STEELS •  
STAINLESS AND HEAT RESISTING STEELS • VALVE  
STEELS • STAINLESS-CLAD STEELS • CAST-TO-SHAPE  
STEELS • COMPOSITE TOOL STEELS • ARMOR PLATE

# JESSOP

# PERSONAL BUSINESS

BUSINESS WEEK  
NOVEMBER 1, 1952



The last 11 years have shown a big shift in the type of insurance policies that people buy to provide cash for their older years.

The main change is this: The individual annuity, once a keystone to most businessmen's retirement planning, has given ground to group annuities, to life insurance policies with annuity provisions, and to retirement-income policies.

An annuity, of course, is a contract that provides a guaranteed income beginning either immediately or at some future date. Such annuities may be (1) for life only, (2) for life with a guaranteed number of payments (the balance to go to a beneficiary), or (3) for life with the provision that beneficiaries will receive the balance of what is left from what has been paid in. A true deferred annuity starting at a future date has no cash value or death benefits.

There are several main reasons behind the shift:

- The insurance companies, for financial reasons, have cooled somewhat to individual annuities, don't push them so hard.
- People have changed their thinking about individual annuities, look for policies with broader coverage, or for other investments.

A man seeking a set-aside for his old age today can pick from any number of insurance plans:

**An endowment policy.** This will build up a fund payable to the policyholder at some future date, or to his beneficiary if he dies before that date. He can either take the money in a lump sum or elect to take it as a lifetime income.

**A group annuity.** These are issued to a number of employees under a master contract held by an employer. They provide for an income after a certain age (based on annual salary) and often carry death benefits.

**Retirement-income policies.** These are of various types, using various names. Generally, they provide for the building up of a fund over the years, which at the end of the period is used to buy a life annuity. Unlike individual annuities, they provide some life-insurance protection.

**Life insurance policies with annuity provisions.** Most ordinary life policies include an annuity provision. This means that in place of a lump sum settlement, a beneficiary may receive an annuity type settlement.

The choice of what insurance plan you pick depends, of course, on your circumstances.

If you're a young man, you're primarily interested in protection. If you're older, you may put a premium on old-age security.

For a man nearing retirement age, in good health, an individual annuity is often a smart move, when fitted in with the rest of his investment program. It's the one way he can be sure of never outliving his capital.

You're on shaky ground when you argue about prices to a lady who wants a new fur coat this fall. Values in the shops are probably the best in years—a reflection of dragging sales.

Fairchild's Index of retail fur prices is 6.2% below October of last year. And that's almost 14% beneath the high point of 1948.

There's no sign yet of a strong enough seasonal sales pickup to change price tags much before Christmas.



# PERSONAL BUSINESS (Continued)

**BUSINESS WEEK**  
**NOVEMBER 1, 1952**

If you're brave enough to buy furs yourself, here are a couple of points you'll want to consider:

Women are picking brown furs this year, with mink especially strong. Black Persian lamb is the one exception in the higher-price class. In general, small furs—stoles and cape jackets—seem to be getting the nod over coats.

One fashion note: a swing, in the specialty shops, to Alaska seal. But prices paid at last month's auctions (up 31.6% over April) put this variety practically in the mink class.

Fall court terms are under way now. And that means calls to jury duty. "Do I have to serve? How long will it tie me up?" are the questions you hear most often.

Jury service is a public duty. You're excused only if you're in certain occupation groups—and then only if you claim exemption.

Rules vary from state to state. But generally you won't have to serve if you're a doctor, lawyer, clergyman, newspaperman, or public official. Women are usually exempt, and some states add special regional jobs—like oil safety engineers—to the list.

If you're not in an exempt occupation, and you qualify as a juror (as to age, criminal record, etc.), only a judge can let you off—after you've been called to serve in a specific court. One ground for pleading for excuse or postponement: impairment of your business.

Most jury calls are for petit juries—trial panels in city, county, state, or federal courts. Normally, the maximum you will sit is two weeks.

For grand jury or special (blue-ribbon) jury duty, the timetable is less definite. Grand juries are usually called for a full court term, but often have to sit much longer (though not every day). Blue-ribbon panels—made up of community leaders picked to try cases involving capital punishment—serve until the case is disposed of.

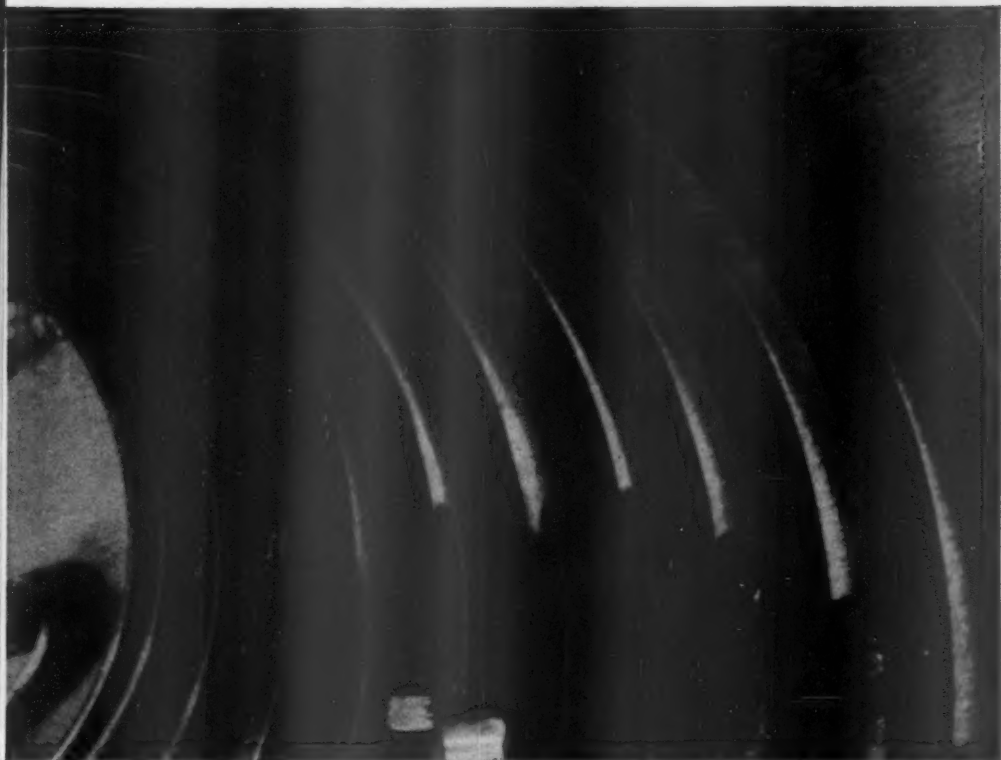
Polio is far from under control, despite this week's encouraging reports (page 33).

Note the estimate that it would take 20-million blood donations a year to supply the immunizing gamma globulin needed for epidemic protection and other demands. (Last year's score was just under 5-million.) And the immunity is only a temporary one, lasting, at tops, six to seven weeks.

Still, current developments are a most important stride. Chances of at least partial protection in severe epidemic areas are improved for next year.

Pressure for changes in income tax laws is building up. This week the American Institute of Accountants came up with a list of 58 specific recommendations to Congress' Joint Committee on Internal Revenue Taxation. Among them:

- Give taxpayers an extra month—until Apr. 15—to put together their returns.
- Change the basis for taxing annuities to provide a lower, "more realistic" rate than the current 3%.
- Allow postponement of taxes on limited amounts of income set aside by self-employed persons in retirement funds.



## *You depend on one of these every day!*

Here are parts of an object you use every day. Can you tell what the object is? If you can't, it's probably because the camera's so close it's difficult to tell one part from another. But, even if you can't identify them, common sense tells you these parts aren't of much use until they're correctly assembled. And the same principle applies to shipping.

Shipping is also made up of "parts" or services. All these parts must be put together properly before the goods you ship or receive can be delivered *safely, on time* . . . and at lowest cost to you.

If you could stand back and see the objects in the picture above, you'd recognize a mainspring and other watch parts. If you wanted them put in ticking order, you'd have

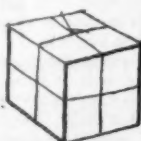
an expert do the job. But what about shipping? Does it cost you less to buy shipping "parts" separately and assemble them yourself? Or does it pay to have a specialist provide complete service? Only by getting the complete picture can you decide which way is best.

So stand back from your shipping problem. Compare cost for cost, service for service. Consider what you now pay for pick-up, insurance, receipts, shipping and delivery . . . as well as the extra costs involved in "breaking down" packages.

Compare all these separate costs with the *one charge* you pay for complete Railway Express service. Call your local Railway Express agent. He'll be glad to help you see how it pays to . . .

*buy complete shipping service . . . in one package . . . and always use*

- No size or weight limit
- ★ Pickup and delivery, within prescribed vehicle limits, in all cities and principal towns
- ★ Liberal valuation allowance
- ★ Receipt at both ends
- ★ Ship collect, prepaid, paid-in-part]
- ★ Ship by air for extra speed



# REGIONAL REPORT



Federal Reserve District	August 1951	July 1952	August 1952	Federal Reserve District	August 1951	July 1952	August 1952
1. Boston	232.5	238.8	239.8	8. St. Louis	280.4	278.6	280.6
2. New York	252.7	252.4	254.9	9. Minneapolis	291.1	303.1	306.9
3. Philadelphia	250.4	249.9	254.3	10. Kansas City	315.6	345.5	346.1
4. Cleveland	263.0	265.6	274.3	11. Dallas	353.2	387.8	390.8
5. Richmond	287.4	294.4	301.3	12. San Francisco	308.3	320.3	320.7
6. Atlanta	315.5	351.1	352.7	U. S. Composite	278.0	284.6	288.0
7. Chicago	275.8	270.0	274.5	1941 = 100; adjusted for seasonal			
				August figures preliminary, July revised			

## Income Indexes Surge Upward

The national composite of BUSINESS WEEK's Regional Income Indexes showed a rise of 1.2% in August. And the indexes for September and October, when they come in, will show new—and substantial—increases.

For the country as a whole, income ran 3.6% ahead of a year ago. The two southern regions, Atlanta and Dallas, still lead the parade with gains that far outrank the rest of the country. St. Louis is just about even with a year ago;

Chicago is the only region showing a loss.

For farmers, 1952 now stands as second best, production-wise. But with farm prices lower than 1951, and costs higher, their net income is almost certain to be less than last year.

The regions which did particularly well in farming were Chicago, San Francisco, Kansas City, and St. Louis—in just about that order. Richmond, Atlanta, Dallas, and Minneapolis have

taken punishment from the drought, and their yearend score in both production and profit will be off.

• **Drought Hurts Prospects**—The dry weather in all sections of the country this fall is seriously delaying the seeding of the 1953 wheat crop, particularly in the Southwest. Where it has been seeded, wheat is suffering from lack of moisture, it badly needs further growth and root development if it is to survive the winter. A large portion of the na-



## *How to* organize your paperwork

Here is a new, easier way to handle routine paperwork and dictation — a different technique that will help you finish faster:

(1) Start at the top—there's no need to sort out the dictation matter; no need to call your secretary in and keep her waiting.

(2) Read the first letter, memo or report. Decide whether to handle it verbally or in writing.

(3) If verbal, pick up your telephone and get it done. If in writing,

pick up your Audograph microphone and get it done.

(4) Go on to the next item, and handle the rest the same way.

Note that you go through the workpile just *once*. If interrupted, it's easy to pick up where you left off.

*You work smoothly, efficiently, quickly — alone, you think and talk easily. There is no confusion, no waste motion, no petty delay. And while you're working, your secretary is intercepting phone calls, getting*

data you need, or transcribing the work you Audographed earlier.

Although versatile Audograph helps you in many ways, it has proved again and again that in this one function alone — *speeding your routine paperwork*—it saves its low cost many times over.

If you are interested in this more efficient way of working, send in the coupon. Try the technique yourself. *You'll find that it really works.*

*Gray*  
**AUDIOGRAPH**

*The world's most versatile dictation instrument*

**AUDIOGRAPH®** sales and service in 100 U. S. cities. See your Classified Telephone Directory under "Dictating Machines." Canada: Northern Electric Co., Ltd. Abroad: Westrex Corp. (Western Electric Co. export affiliate) in 35 countries. Audograph is made by the Gray Manufacturing Company — established 1891 — originators of the Telephone Pay Station.

\*TRADE MARK REG. U.S. PAT. OFF.

The Gray Manufacturing Company  
Hartford 1, Connecticut

Please send me your illustrated Booklet Y-11 —  
"Now We Really Get Things Done!"

NAME \_\_\_\_\_

FIRM \_\_\_\_\_

ADDRESS \_\_\_\_\_

TITLE \_\_\_\_\_

CITY \_\_\_\_\_



# WHAT IS WHEELING EXPANDED METAL?



**Solid Steel**



**...pierced**



**and stretched**



**Stronger**



**per pound...**

**lighter per foot...**

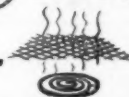


**Allows free passage**

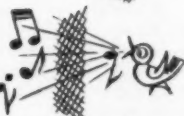
**to light...**



**heat...**



**sound...**



**and air**



**It's the versatile metal of 1,001 uses!**

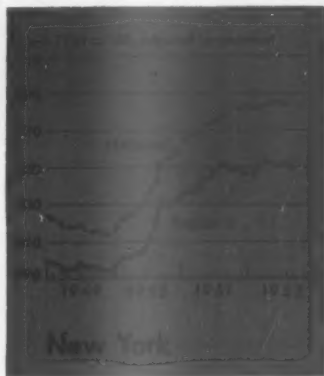


**WHEELING CORRUGATING COMPANY**  
WHEELING, WEST VIRGINIA

ATLANTA BOSTON BUFFALO CHICAGO COLUMBUS DETROIT KANSAS CITY  
LOUISVILLE MINNEAPOLIS NEW ORLEANS NEW YORK PHILADELPHIA RICHMOND ST. LOUIS

tion's winter wheat crop is in danger, threatening farm income for 1953.

Here is how BUSINESS WEEK reporters in four of the 12 regions see the news that has affected income patterns since August:



**W**ITH THE PICKUP in consumer lines reinforcing high production of heavy goods, the New York region is in very good shape indeed. In many areas throughout the region, employment and production figures are flirting with their postwar highs.

• **Upstate Strong**—The three large upstate cities—Buffalo, Rochester, and Syracuse—are the strongest points in a general picture of strength. Buffalo is busier, and its labor supply tighter, than at any time since World War II days.

Companies around Buffalo are beginning to hire women to replace men they can't get, and many plants are taking completely untrained men and training them. Here's what they're doing: Chevrolet's aviation engine plant upped its employment from 110 to 1,900 between Aug. 1 and Oct. 1, and wants another 1,100 within the next year or "perhaps sooner." Sylvania Electric has just stepped up its schedule from a five-day single shift to a six-day double shift, and wants 300 to 400 more people. Curtiss-Wright has launched a \$10-million expansion program, wants 1,500 to 2,000 more men.

In Syracuse, too, plant expansion and booming business is causing serious labor shortages. Smaller cities as much as 30 and 40 mi. away are sharing in the prosperity.

Total employment in Rochester is at an all-time high. Helped by the revival in men's clothing, as well as by expanding defense work in instruments and photographic and optical equipment, Rochester has changed from a moderate labor surplus area to one of balanced labor supply.

• **Jersey Converts**—In contrast to upstate New York, where plant expansions



# A Message to Capable Men Who Are Still Earning Under \$10,000

**Here Are Some Surprising Facts about the Great Demand for High-Salaried Executives Today—and What You Can Do to "Break Into" the \$12,000 to \$20,000 Bracket**

AMAZING as it may seem, a serious shortage of high-salaried executives exists in every branch of business and industry today. You don't have to look further than the want-ad columns to know that the really big jobs go begging. Openings exist right now for high-calibre executives who can command a salary of \$12,000 . . . \$15,000 . . . \$20,000—and more.

## WHY the Big Jobs Go Begging

Employers are on the constant look-out for well-rounded men who show a potential for handling the big jobs. They're eager to invest in men who know the methods used by others to increase profits—men who can make money for them!

Such men are becoming hard to find. WHY? The acute shortage has been variously explained by the war years, the rapid expansion of industry, the tendency to specialize. The important thing is not why the shortage exists but WHAT you can do about it, and HOW you can qualify for the great opportunities that exist in business today.

As one of the foremost business consultants in the U. S. and the head of a large accounting firm, J. K. Lasser works with some of the nation's leading corporations. He has seen at first hand the scarcity of qualified men for high-salaried jobs. Why, Mr. Lasser asked, are there so many openings at the top—and so many men stymied in the \$5,000 to \$10,000 a year bracket?

## The One Ingredient That Qualifies You for a Top-Salary Job

To find the answer, Mr. Lasser went directly to the heads of companies in many fields. Consistently he heard the same answer: the one thing men in the middle brackets need to make the high salary grade is—a general, well-rounded knowledge of business procedure. "Give me a man with a basic knowledge of accounting, marketing, employee relations and taxation," one employer remarked,

**NOTE TO EMPLOYERS:** Mr. Lasser's new course is designed to help solve your problems in readying men for top-level openings in your organization. Send us the names and addresses of men working for you who merely need more background in sound business procedure to qualify them for bigger jobs. We will gladly mail a booklet to them, fully describing the course, with out charge or obligation to you.

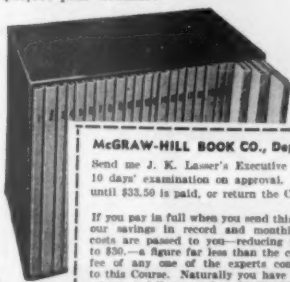


J. K. LASSER

"and I'll lead him by the hand to a \$20,000 office!"

This simple answer gave Mr. Lasser an idea for a brand-new plan that would literally lead men out of the \$5,000-\$10,000 plateau and into the top jobs. He asked the foremost men in every field to reveal working methods that have brought success in marketing, public relations, accounting, budgeting, insurance, government regulations, taxation, and the "know-how" in every business procedure for top-level management.

Mr. Lasser consulted only top men, such as business analyst Roy A. Foulke, Vice President, Dun and Bradstreet; marketing expert Marion Harper, Sr.; twenty executives nationally known for their successful methods. Then he simplified and "boiled down" this wealth of knowledge and experience into J. K. Lasser's Executive Course in Profitable Business Management—providing the all-important ingredient needed to boost men into the \$10,000-plus bracket!



Featured in **FOR-TUNE MAGAZINE** as one of the nation's foremost authorities on business and taxes. Mr. Lasser is head of one of the largest accounting firms in the United States and Adjunct Professor and Chairman of the Institute on Federal Taxation at New York University.

## What You Can Learn from These Successful Executives

Lasser's Executive Course makes it possible for you to view each departmental operation from the top down, with an expert as your guide. You learn to talk, think, and plan with the kind of well-rounded authority expected of top-management.

You learn streamlined methods of distribution; how to run a cost system; how to design systems for internal control of business. Even hardboiled employers will be impressed by your knowledge of controlling operations through budgeting; how to avoid business frauds; and how to cut paper work in half. Your knowledge of new marketing methods, successful tax planning, and effective management under today's government controls can save and make money for any employer.

## Are You READY for Advancement?

If you're not *sure* of your own advancement, send for Lasser's Course right away. By looking at the whole Course—noting the ground covered, the fact-filled treatment, Lasser's clear, informative style—you can quickly see how this Course can prepare you for advancement—back you up with the best ideas of 21 leading business experts.

Take the simple step of dropping the coupon in the mail today. No money down—no salesman will call—you merely agree to send your first installment or return the books, in 10 days. Send the coupon now—it may turn out to be one of the most advantageous steps you ever took.

**See all 24 vols.—Mail this FREE EXAMINATION COUPON**

McGRAW-HILL BOOK CO., Dept. BW-10-25, 327 W. 41 ST., N.Y.C. 36

Send me J. K. Lasser's Executive Course in Profitable Business Management, 24 volumes, for 10 days' examination on approval. In 10 days I will send \$3.50, and \$5.00 monthly thereafter until \$33.50 is paid, or return the Course postpaid.

(Print)  
Name.....  
Address.....  
City.....State.....  
Company.....  
Position.....BW-11-1

If you pay in full when you send this coupon, our savings in record and monthly billing costs are passed to you—reducing the price to \$30.—a figure far less than the consulting fee of any one of the experts contributing to this Course. Naturally you have the same return privilege under McGRAW-HILL'S MONEY BACK GUARANTEE.

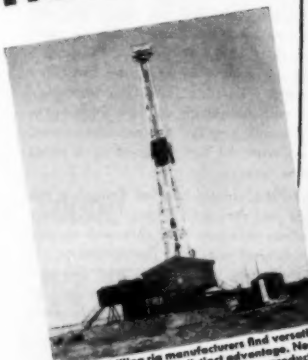
A fallen log in a tangle of vines . . . brawny arms and a primitive brain fired by curiosity. Such was probably the setting—50 centuries ago—where the first “pulley” was born . . . and Man moved a halting step forward in the transmission of power!

Today, modern industry is built on the application of power. Scientific power linkage between driving and driven equipment is vital in attaining high production volume.

In every phase of modern production—logging, mining, construction, petroleum, agriculture, marine industry—Twin Disc three-stage Hydraulic Torque Converters are multiplying torque in exact proportion to load demand (up to 6 times engine torque—highest in the field) and protecting driving and driven equipment by absorbing load shocks and vibrations.

For applications not requiring torque multiplication, Twin Disc manufactures a line of standard Hydraulic Couplings and Friction Drives . . . thus whether you build or use equipment—or buy the products of American industry—chances are that a Twin Disc power link has played a part in the creation of everything you eat, wear, or use.

## From Muscles to Machines!

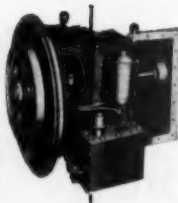


Leading drilling rig manufacturers find versatility of Twin Disc line a distinct advantage. New York Rig above has five Twin Disc products: two Hydraulic Torque Converters (above)—a Reverse Gear—a Two-Speed Transmission—and a Twin Disc rotary drive Friction Clutch.



TWIN DISC CLUTCH COMPANY, Racine, Wisconsin - HYDRAULIC DIVISION, Rockford, Illinois

BRANCHES: CLEVELAND • DALLAS • DETROIT • LOS ANGELES • NEWARK • NEW ORLEANS • SEATTLE • TULSA



are straining manpower limits, northern New Jersey, by and large, has converted existing plant from peace to wartime uses. As a result, although employment is high, it is more stable than in New York, and not characterized by sudden spurts forward.

• **Pickup in New York**—At long last, New York City has got out of the substantial labor surplus group. The textile industry has recovered after a thorough inventory cleaning, and the garment industry is booming. Production of women's coats and suits is running well above the average for the past three years. In fact, among the major industries in the area, only construction is down, mostly because of a drop in apartment house building. Businessmen are confident that the upswing will continue through the end of this year and into next.

• **Farm Profits Off**—Gross farm income for 1952 will be about on a par with the record year of 1951. But higher costs are paring the net below last year.

In spite of good fall weather, the supply of feed and forage will prove uncomfortably narrow for winter milk production. The corn crop was about even with last year, but hay and oats were under; in all, in-shippments of feed and forage will have to be larger than usual this winter.

• **Fruit Crops Off**—Late rains generally helped vegetables in New York and New Jersey, and the added growth was marketed at prices substantially better than 1951. But, in spite of similarly higher prices, income from fruit shows little chance of scoring a comparable gain. The year's production is running well behind a year ago. New York's important apple crop is running about a third under last year.



**B**USINESS in the Richmond region has shored up most of its soft spots in the past three months and is pushing on to new high levels.

The recovery in textiles has worked through all areas in the region, many mills have orders to keep them busy

**A HARPER**

**SPECIAL**

**TO SOLVE YOUR SPECIAL PROBLEM**

On the equipment you manufacture, a special fastening by Harper may improve your product—cut costs—speed assembly—or simplify maintenance.

Harper regularly produces hundreds of special type fastenings for a wide range of products. Qualified engineers and metallurgists, backed by over a quarter century of experience, are available to work with you on the design and production of fastenings engineered to meet your specific requirements.

The H. M. Harper Company is also the world's largest exclusive producer of standard fastenings made of non-corrosive metals and all stainless steels. Over 7,000 items are regularly carried in stock. Call the Harper Branch Office or Distributor nearest you. And remember, Harper engineers and metallurgists are eager to help you solve any tough corrosion problem you may be facing.

**THE H. M. HARPER COMPANY**

8225 Lehigh Ave., Morton Grove, Ill.

*Tap Changer Fastening  
of Copper  
Used in Transformers*

**BRASS • SILICON BRONZE • NAVAL BRONZE  
MONEL • ALUMINUM • ALL STAINLESS STEELS**



**HARPER**

**EVERLASTING FASTENINGS**

**SPECIALISTS IN ALL  
NON-CORROSIVE METALS**



Here's the

**10-way solution**

to Interoffice Traffic

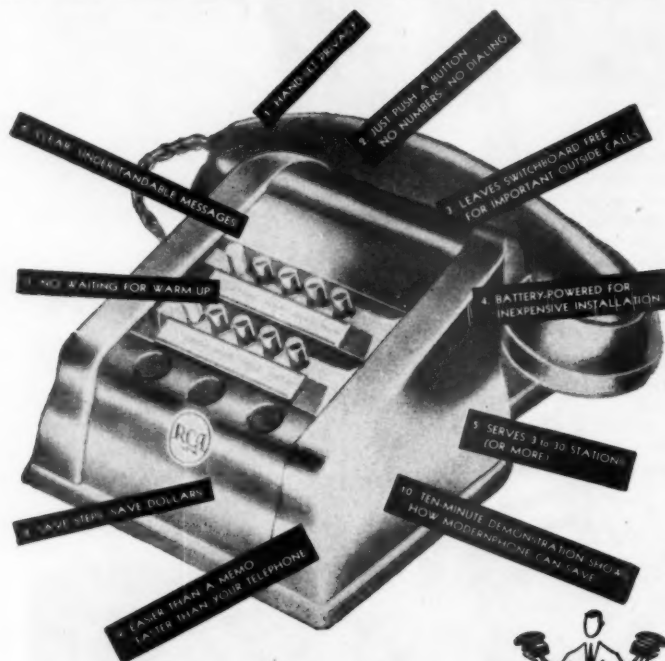
—with RCA Modernphone

Here's complete flexibility in interoffice communications. RCA's new Modernphone System.

With Modernphone, you find your man in an instant. Just push a button, and you're connected. No need to put your call through your switchboard—

no need to tie up your switchboard extension with inside calls.

For faster office operation, for substantial savings in interoffice communication, check Modernphone right away. MAIL COUPON NOW.



Sound Products, Dept. 26K, RCA, Camden, N. J.

- ☐ Please arrange a free demonstration of Modernphone in my office.  
☐ Please send me literature on Modernphone.

Name \_\_\_\_\_ Title \_\_\_\_\_  
 Company \_\_\_\_\_  
 Address \_\_\_\_\_  
 City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_



**RADIO CORPORATION of AMERICA**  
 SOUND PRODUCTS  
 CAMDEN, N. J.

through the first quarter of 1953, some are booked as far ahead as late spring. Shipments of rayon and acetate yarn are running about 15% higher than a year ago—August's total was the second highest on record. Cotton consumption is up substantially.

After six months of restricted operations, woolen mills—helped along by defense orders—are back in full swing. For example, Dunn Woolen Co., at Martinsburg, W. Va., has hired some 500 more workers to handle new orders for upholstery cloth and Army blankets.

• **Sales Record**—Department store sales, stimulated by better business and heavy promotion, jumped 20% in August to push through the all-time peak reached in the scare-buying month, January, 1951.

Shipments of southern pine are running slightly ahead of a year ago, and are also ahead of new production, as mills reduce inventory. Production should pick up sharply, though. New orders are around 15% ahead of a year ago, and mills expect demand to stay high.

Conditions in the coal mining areas of the region of course hinge on the final settlement of the wage increase negotiated by John L. Lewis and the operators. Barring a long drawn-out strike, today's high level of industrial operations should keep the mines going fairly fast. But long-term cost problems are closing some mines. In Tennessee, the model town of Royal Blue, in Campbell County, is due to become a ghost town. Blue Diamond Coal Co. closed its mine there. There was plenty of good coal left, but the combination of higher costs and falling demand left no profit in operating the mine.

• **Virginia Steady**—The Hampton Roads section continues to be the brightest spot in Virginia. Richmond and Alexandria are both holding steady at a high level. At the other end of Virginia, conditions have improved sharply in Bristol, with unemployment there now at the lowest rate since World War II.

• **North Carolina Gains**—Improvement in furniture, textiles, and apparel paved the way for a change in classification of the Greensboro-High Point (N. C.) area. It is now an area of balanced labor supply. In nearby Sanford, N. C., Cornell-Dubilier Electric Corp. is establishing a plant which will employ 1,000 to produce electronics equipment.

Things are also looking up somewhat in Cumberland, Md., one of the worst employment spots in the state, and long listed as having a substantial labor surplus. The Celanese Corp. plant there is recalling workers; 600 more are at work now than a year ago.

• **Farmers Drop Behind**—The region's farmers are rounding out a farm year



## ***Keeps a shoe on its toes and off its uppers***

Feet on the move in industry today set a tough pace for shoes. But modern work shoes and safety shoes *last longer* (and are better-looking) than ever before. And on many of the most popular styles, you'll find soles made of Du Pont neoprene . . . trim, comfortable soles that frequently outlast shoe uppers.

Daily exposure to oil and grease—enemies of natural rubber—does no material damage to rugged neoprene soles. Hot steel flooring in factories won't soften them or cause them to lose their shape. Construction men count on neoprene soles to resist cutting and chipping from jagged rocks. On the "tough" jobs, *neoprene* soles stand up where others fail.

Today, shoe manufacturers are offered a wide selection of neoprene soling materials from which to choose the soling best suited to their particular shoe styles. For long wear under rugged service conditions, work soles of neoprene, neoprene-cord, and neoprene-cork have been workmen's favorites for

many years. Springy neoprene crepe soles and new cellular neoprene soles are popular, too, because they combine casual-shoe comfort with work-shoe durability.

But shoe soles are just one of many products improved by using Du Pont neoprene. Neoprene's ability to withstand sunlight and weathering make it an excellent jacketing material for electrical wire and cable. Because of its oil and chemical resistance, neoprene is specified for many types of industrial hose, belting, gasketing and packing. Wherever the service demands a long-lasting resilient material, engineers investigate the possibilities of neoprene.

For more information about neoprene, write for our booklet "Design for Success with Neoprene." It describes neoprene's properties and many of its important uses. E. I. du Pont de Nemours & Co. (Inc.), Rubber Chemicals Division X-11, Wilmington 98, Delaware.

BETTER RUBBER PRODUCTS ARE MADE WITH

# **DU PONT NEOPRENE**



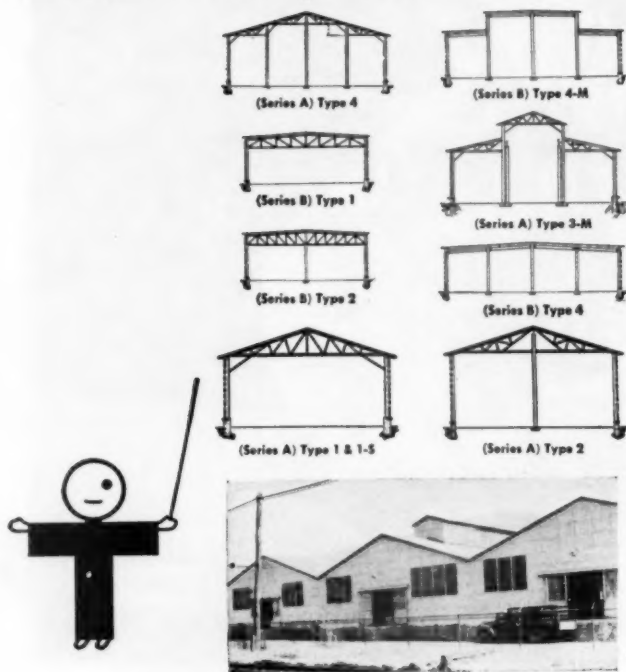
**150th Anniversary**

BETTER THINGS FOR BETTER LIVING  
... THROUGH CHEMISTRY

NEOPRENE RESISTS: OXIDATION • HEAT • SUNLIGHT • OZONE • OILS • GREASE • CHEMICALS • FLEX-CRACKING • AGING • ABRASION • FLAME



## TRUSCON... a name you can **build** on



### Truscon has the steel buildings it takes ...for **better** more economical construction

• Truscon can furnish you with well-engineered pre-fabricated steel buildings, that can be adapted to your particular layout needs at moderate cost.

A wide range of designs (a few shown above) is available. These can be used for all kinds of industrial and commercial purposes. They can be erected in a matter of days, and, if necessary, can be dismantled and re-erected in another location at low cost. The steel design and construction is strong and permanent.

Protection against fire is an important advantage. And upkeep cost is low.

Write and tell us your building requirements. Truscon engineers will be glad to make suggestions and help you select the building that fits your needs.

We will cooperate with your local contractors for the speedy erection of these "Any-Purpose" Truscon Steel Buildings.



#### FREE BOOK

Several standard units in which Truscon Steel Buildings are made are shown above. Plan your building needs with the aid of the fully illustrated, 24-page catalog giving full details on these Truscon Ready-Made Steel Buildings. Write for your free copy today.

## TRUSCON® STEEL DIVISION

REPUBLIC STEEL CORPORATION  
1076 ALBERT STREET  
YOUNGSTOWN 1, OHIO

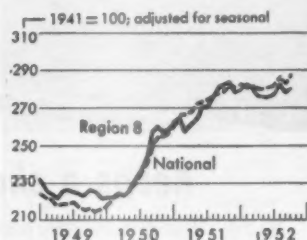
Manufacturers of a Complete Line of Steel Windows and Mechanical Operators • Steel Joists • Metal Lath • Steeldock Roofs • Reinforcing Steel • Industrial and Hangar Steel Doors • Bank Vault Reinforcing • Radio Towers • Bridge Floors.

in which net income will be sharply down from 1951.

The cotton crop in the Carolinas is off more than 20% from last year. The moderate gain in cotton prices is offsetting only part of the decline in volume.

One of the brightest spots has been the region's growing dairy industry, in which production, so far, has held up surprisingly well in spite of poor grasslands weather. But farmers are entering the winter season poorly supplied with home-grown feed and forage. The oats crop, harvested early in the year, was excellent, but corn was severely set back in Virginia and the Carolinas, and the hay crop is substandard. And so winter feeding will be a problem.

• **Tobacco Off**—Tobacco production was under last year in Maryland, West Virginia, and the Carolinas—only Virginia beat last year's record. Tobacco prices are good, but with the lower crop, this offers, at best, a slim chance for a gain in farm income.



### St. Louis

**B**USINESS in the St. Louis region has taken a turn for the better. Activity in the region's heavy industries has been consistently high. Its major troubles over the past year were in the field of consumer products—shoes, furniture, textiles, and apparel. Now the general revival of demand for these (BW—Oct. 25 '52, p32) is boosting the region.

• **Postwar Records**—The steel strike threw the Louisville area into a slump, but, as happened elsewhere, recovery carried the area to higher than pre-strike levels. Employment there now is at its highest since 1944, with manufacturing, trade, construction, and transportation all gaining. Whiskey distilling, a major trouble spot for close to a year, has picked up sharply now that the industry is preparing for the holiday trade.

The furniture industry around Louisville has been affected in a big way by the general pickup in demand.

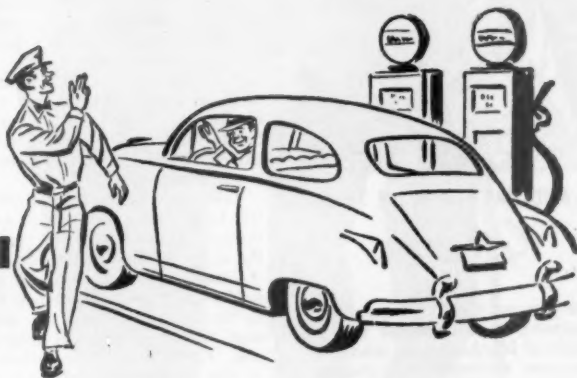
"SEE YOU AT THE POLLS!"



"SEE YOU AT THE POLLS!"



# "SEE YOU AT THE POLLS!"



Nobody knows for sure how it started—this line about "See you at the Polls!" we're hearing all over these days.

Best explanation seems to be that it came from that state candidate out west. . . . His opponent in a debate got all riled up and challenged him to fight it out in the alley.

But he said—"I'll settle this the AMERICAN way—I'll see you at the polls!" And the audience picked up the chant.

Now everybody's saying it—and on Nov. 4 everybody will be *doing* it!

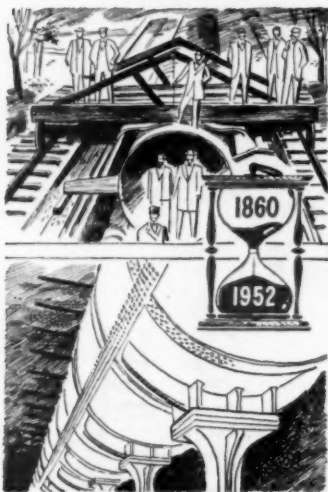
"SEE YOU AT THE POLLS!"



"SEE YOU AT THE POLLS!"



## A durability story that really HOLDS WATER



...AND HAS FOR MORE THAN  
*90 years*

The famous Croton Aqueduct, designed to carry water to the island of Manhattan, is made of genuine wrought iron plates. Installed in 1860, the line has "delivered the goods" for more than 90 years. A recent inspection revealed that it is still in excellent condition.

### Here's what it means to your PRODUCTION PICTURE

Whether it's used for water lines, or any other service where corrosion is a threat to durability, the time-proven corrosion resistance of genuine wrought iron safeguards your operations from the costly consequences of premature pipe failure. In practically every industry genuine wrought iron is answering the need for production continuity, lower maintenance.

- Our booklet, "Proof by Performance," presents some interesting case studies of wrought iron installations from the past. Send for your copy today. Write: A. M. Byers Co., Pittsburgh, Pa.

# BYERS

## WROUGHT IRON

Manufacturers are producing for current orders rather than for inventory, and would produce more if they could get workers. At least 200 more skilled furniture workers could be used right now.

- **Outsized Boom**—West of Louisville, the area around the Atomic Energy Commission plant in Paducah is still going strong—almost too much so for some of the older plants in the vicinity. The impact of the AEC plant on the area's labor force and its transportation and other facilities has been terrific. Some of the plants have suffered so much they are thinking of moving away.

In St. Louis itself, employment is rising steadily, as paper, apparel, and shoe manufacturing plants step up their hiring.

- **Defense Jobs**—The southwestern corner of Indiana is doing very well. Employment at Evansville, main city in the area, is around 80,000—a post-war record. Servel, a big jet wing producer, is approaching its peak wartime employment, and still hiring fast. Skilled labor is short, and some companies are going as far as 100 mi. away to get workers.

Television sales in Little Rock, Ark., will boom as the city gets its first TV station. Telecasters expect to be on the air by the first of the year.

- **Cash Crops Saved** . . . —In spite of over-all poor growing weather, farmers in the St. Louis region can look forward to income about as good as last year. This is because the uneven spread of the drought allowed each section of the region to come through handsomely on its major cash crop.

The life-saver for the southern section is cotton. Late rains added about 10% to the crop, and it looks now like a harvest about even with last year for Tennessee and Arkansas and about 12% ahead of last year for the important Mississippi crop. This margin, combined with better prices, means a healthy increase in farm income. Arkansas and Mississippi have also produced record-breaking rice crops.

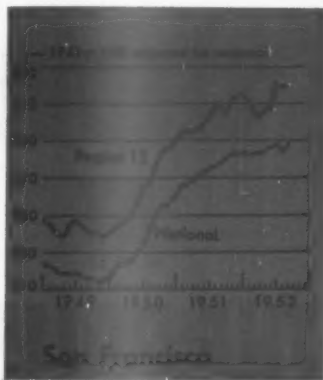
In the northern part of the region, Missouri is having a bonanza corn harvest, almost 30% better than last year. Elsewhere, the crop is at least 25% under average.

In spite of bad weather, soybean yield is about average in Arkansas, a good deal over average in Missouri. In both states production is now up substantially. With prices averaging better than a year ago, the larger crop should sweeten farm income.

- . . . But Feeds Are Short—That about sums up the good news; now for the bad. Winter feeding is bound to be a harassing problem of livestock men. Except for Missouri, the corn

crop is down. Hay also took a drubbing from drought. A poor corn crop on top of a poor hay crop means heavy buying of feed. Milk output has fallen below last year, except in Indiana, and there is now little chance that it will pick up. Income from hog marketings will also be down substantially. Prices are under year ago, and last year's spring crop, soon to be ready for market, was under 1951 by from 2% in Indiana to 22% in Missouri.

The region is still feeling the pinch of dry weather. Rains are badly needed to permit farmers to do their fall seeding of oats and wheat for harvest next spring.



**B**USINESS in the San Francisco region is excellent—and getting better all the time.

For California as a whole, new employment highs have been scored in textiles, paper, printing, electrical equipment, and scientific instruments.

- **Boom Rolling**—Industrial expansion in the San Francisco Bay area is running 15% ahead of last year, and is scattered over a wide variety of industries. Nonfarm employment in August was at an all-time record.

The boom also keeps rolling in Los Angeles County, with industrial expansion now at the fastest rate in history. The first nine months of this year saw 26,000 new jobs created by new plants and additions to old ones. Construction has begun on 1,000 new homes at the once isolated section of the county around Palmdale. Los Angeles aircraft plants and the Air Force operate a final assembly and test base for jet aircraft at Palmdale.

- **Other States Strong**—Utah and Arizona are both strong. Looking at its over-all labor situation, the Dept. of Labor has changed the Ogden (Utah) listing to one of balanced labor supply. However, the shortage of skilled labor is particularly acute. Howe Sound Co. is tuning up its new cobalt refinery



## Twins at birth, but not at 60

Like twins, it's hard to tell a Westinghouse fluorescent lamp from any other brand, or from older Westinghouse types. Except for the new Westinghouse bump-base, they all look alike. But as they grow older, the new Westinghouse stays younger longer. At 7500 hours, or about 3½ years of normal use, the new Westinghouse lamps still give you 75% of their original light output.

One reason for this longer life is the chemi-

cal phosphors used to coat the inside of the tube. These chemicals are processed and tested to remove life-shortening impurities. This purity also eliminates color distortion and change. The result is a longer, constant brightness throughout the life of the lamp.

For all the facts, call your Westinghouse Lamp Distributor today, or write to the Westinghouse Lamp Division, Bloomfield, New Jersey.

YOU CAN BE **SURE**...IF IT'S



# Westinghouse

## clues: to the solution of management men's problems.

Published every week—closes 12 days in advance. Rate—\$5.00 per line (\$2.50 per line for positions wanted ads), minimum 2 lines. Allow 5 average words as line; count 2 words for box number. Write for special rates for Business Services advertisements. Address box number replies c/o **BUSINESS WEEK** to the office nearest you. **NEW YORK**, 330 W. 42nd St., **CHICAGO**, 320 N. Michigan Ave., **SAN FRANCISCO**, 68 Post St.

### EMPLOYMENT

#### Positions Vacant

**Technical Sales Engineers for commercial semiconductor products.** An intensive program of research and development at Hughes in the field of semiconductor devices has now reached a point where these devices will be made available to the electronics industry. If you are professionally qualified in the field of electronics and have a proven record of sales accomplishment in the field of small electronic parts, we would like to talk to you about this important, newly created position on our staff, Hughes Research and Development Laboratories, Engineering Personnel Department, Culver City, Los Angeles County, California.

#### Selling Opportunity Offered

**An Eastern spring manufacturer requires representation in New York, New Jersey, Pennsylvania and New England.** Write Box 5815.

#### Positions Wanted

**Administrative or sales engineer.** Eleven years sales management, leading oil company. Four years industrial development engineer. Four years teaching chemistry and mathematics. Age 43. Box 5775.

**Economist with 15 years responsible experience** in financial research, business, and security analysis. Publications. Familiar with government regulations. Box 5789.

**Executive Development: 2 years national org;** MA in pers. adm. 14 yrs exp; also qual. as exec. asst.; age 37. Box 5789.

**General Manager or Works Manager.** Thorough knowledge of factory operations, tooling, production control, cost & general acctg., purchasing, incentive plans, ind. relations. Experienced negotiator of union contracts. Reputation for reducing cost & increasing profits. Age 46, good health. Excellent references from prominent industrialists. Box 5814.

**Management Engineer, staff or administrative.** MIT graduate, experienced in office methods, accounting, budgets and overhead analysis. Locate Westchester-NYC area. Box 5790.

**Management: Outstanding Educational background.** Broad Executive Experience, with ability & sound judgment to produce successful leadership in your business. Age 45. B.S. Elec & Mech Engr., Masters Deg in Bus Adm. Over 20 years in Managerial positions of responsibility. Heavy in Prod. & Adm. fields of Services, Food & Food Mach., Processing, Catering, Procurement, Spec. Statistics, Cost, Storage, Office Mgmt. Comptroller, Personnel, Sales. Qualified to meet your most exacting needs. Know technical, Prac. & Administrative means of getting best results. Now employed, available on short notice. Box 5742.

**Sales director—20 years sales experience** with top magazine publisher with total circulation will over seven million. Developed national and local sales and promotion plans, directed field force, handled national distributions and liaison with all distributors. Qualified to handle all phases of sales and promotion of nationally distributed products. Full details on request. Box 5825.

#### Selling Opportunities Wanted

**Automotive jobbers in Va., D.C., and Maryland** sell the products of Manufacturers I represent. Dignified Aggressive promotion. Box 5289.

**Rockies—Engr.-Mfrs. Rep.—Specialty sls. mgmt.** exp.—Seeks lines. Box 1392, Denver.

**Boston Sales Engineer can use additional line** requiring engineered sales to engineers and contractors. Now handling protected metal for roofing and siding. Box 5769.

### SPECIAL SERVICES

**Designers and builders of special production** Machinery and Equipment. Tools and Dies. Plant Layouts and surveys. Completely confidential and reliable services. Central Design & Development Company, 65 Flatbush Avenue, Brooklyn 17, N. Y.

**Contemplating foreign trade expansion?** Our representatives all over the world are ready to assist you in developing on the spot information. Our clients include manufacturers, exporters, engineering concerns, advertising agencies, industrial consultants, and foreign governments. For details, write Overseas Business Services, McGraw-Hill International Corporation, 330 West 42nd, New York 36, N. Y.

**Information Unlimited. Any Subject. Reasonable fees.** John Todd, 904 West 58th, Vancouver, Washington.

**X-Ray Incorporated in your Detroit Office** and Laboratory for Quality Control on materials purchased by you in this area. We offer Chemical, Spectrographic, Chlorimetric, Physical, Microphotographic, and Radiographic Testing. Phone or write for complete information on our services. 12931 Oakland Ave., Highland Park 2, Michigan. Townsend 9-5400.

### BUSINESS OPPORTUNITIES

**Profit Opportunity for lifetime business.** Start a Venetian Blind Laundry. New Machine. You can aim at a first year \$15,000 profit. L. C. Co., 442 N. Seneca, Wichita 12, Kansas.

**Midwestern Manufacturer medium, heavy** electro mechanical machines, sold nationally, desires working capital by merger with well rated firm seeking added products. Box 5815.

**Metal Working Plants Purchased—Will buy** controlling interest or "lock, stock and barrel" Propositions from \$100,000.00 up. Our Dun & Bradstreet Rating is AA-A1. All transactions held in strict confidence. Present Personnel, Accounting, Legal and Banking Connections retained. Write Box 5783.

**The Florida Opportunity Bulletin, published** monthly, is a factual, exciting publication featuring hundreds of actual job openings, businesses, income properties, farms, groves, ranches, etc. All areas of the Sunshine State covered—Pensacola, Tallahassee, Jacksonville, Orlando, Tampa, Ft. Myers, Miami. Reports & feature articles each issue on employment, business, industry, trade, real estate, farming. New industries are reported, giving names, locations. No other Florida magazine like it! Let the Bulletin be your gateway to opportunity, health, happiness. Send only \$1.00 cash, check or money order today for special short-term subscription next 4 big issues. Satisfaction guaranteed! Florida Opportunity Bulletin, Box 450-J5, Coconut Gr., Miami 35, Fla.

### EQUIPMENT

#### For Sale

**Thomas Collators—Easily, quickly gather sales** bulletins, price lists, catalog sheets, etc. in 2 to 16-page sets. Saves 40% to 70% over cost of hand collating. Many sizes, portable and floor models. For free folder 112 and collating analysis sheet, write Thomas Collators, Dept. L, 30 Church St., New York 7, N. Y.

**Roll-Or-Karl Dual Appliance Trucks. The SAFE** way to handle stoves, refrigerators, freezers, pianos, organs, etc. Cap. 1,000 lbs. Rigidly constructed to withstand many years of service. Patented (No. 225819) Step-On-Lift. For price and full information write Dept. W., Roll-Or-Karl Co., Zumbrota, Minnesota.

### PLANTS—PROPERTIES

#### For Lease

**For lease in Fall River, Mass. Five floors in brick** building, 40,000 square feet for floor. Will divide to suit. Fluorescent lights, sprinklers, wiring, heat, live steam. Freight and passenger elevators. Reasonable rent. Brokers invited. Brochures available. R. H. Glassman, 27 Mason Street, Pawtucket, R. I.

### GIFTS

**Xmas Gift direct from Arizona Ranch to your** customers, etc.—New crop grapefruit (full crate 70¢) \$5.50 deliv. U.S.A. Send list, check to J. W. Colefish, 701 Portola Ave., Glendale 6, Calif.

### BUSINESS SERVICES

#### Auto Fleet Leasing

**ROLLINS FLEET LEASING—Any number of Cars or Trucks** No capital investment. Better employee relations. New cars yearly. Savings of thousands of dollars. Unlimited mileage.

**100% TAX DEDUCTIBLE** (Rheinholt, Delaware, Phone 3621)

near Salt Lake City, but it will be at least six months before the plant hits quantity production. When in full operation, it will produce some 2.5-million lb. of cobalt a year—more than doubling U. S. output.

Arizona employment has been rising during the usually slow summer months and is now 10% over 1951. Trade employment for the last two months has been at about the usual Christmas peak level.

• **Drought Hurts**—In the Northwest, the weather is the only important factor that is negative in the business outlook. September and October have been virtually rainless. As a result, streams are low, and power has already been curtailed. Worst hit, so far, is the aluminum industry, with about one third of normal production lost, but further cuts will be necessary if heavy rains do not set in soon.

The lumber industry is also suffering because of the dry weather. Woods have been closed because of fire hazard. In September, usually a peak month, Oregon lumber employment was down 2,500.

Portland trade got a boost when the area's first TV station went into operation. About 4,000 sets are in use there now, and up to 35,000 more are expected to be added by the end of the year.

• **Farm Prospects Bright**—The region's good news carries right through to farm conditions, where the vernal outlook points to income even higher than the record take of 1951.

All across the board, production has been high for the region's crops—in many cases at record and near-record levels.

Cotton, a big money crop for irrigation farmers in California and Arizona, came through beautifully. The combined harvest is 15% ahead of last year.

With almost ideal growing weather, potato yield and production is excellent. Rice, grown in the region only in California, set a new record for production. Yields on hops were up in Idaho, Washington, Oregon, and California.

Citrus fruit production in California and Arizona will be at least as large as, and probably larger than, last year. The region's combined apple crop beats last year by a good margin, but is still well under average. California's vineyards, high dollar-earner for the state, are producing a large crop of grapes, but under last year's record. With winery buying lagging, prices can scarcely rise above last year's low level.

• **Dry Planting**—The drought casts a long shadow on prospects for next year in the Northwest. Because of dry weather, a large portion of winter wheat acreage is still unplanted. Where it has been sowed, much of the seed just lies in the ground, ungerminated.



# ADVERTISERS IN THIS ISSUE

Business Week—November 1, 1952

ADDO MACHINE CO., INC.	130	GENERAL MOTORS CORP.	97	PITTSBURGH CORNING CORP.	102
Agency—The F. W. Peiler Co.		(FRIGIDAIRE DIV.)		Agency—Barton, Barton, Dursline & Osborn, Inc.	
THE ADVERTISING COUNCIL	167	Agency—Foster, Cone & Belding		PITTSBURGH PLATE GLASS,	
AIR MAZE CORP.	3	THE B. F. GOODRICH CO.	1	FIBER GLASS DIV.	6-7
Agency—Hatten, Barton, Dursline & Osborn, Inc.		Agency—The Griswold-Eshleman Co.		Agency—Ketchum, MacLeod & Grore, Inc.	
AIR REDUCTION CO., INC.	181	GOODYEAR TIRE & RUBBER CO., INC.	11	PORTLAND CEMENT ASSOC.	122
Agency—G. M. Hasford Co.		(PLIOFILM DIV.)		Agency—Boche, Williams & Cleary, Inc.	
Agency—Kulmer Agency, Inc.		GRAY MFG. CO.	159	PRESSO STEEL TANK CO.	84
ALLEGHENY LUDLUM STEEL CORP.	88	Agency—French & Preston, Inc.		CORP.	
Agency—Walker & Downing		GRAYBAR ELECTRIC CO.	76	RADIO CORPORATION OF AMERICA	164
ALLEN-BRADLEY CO.	35	Agency—G. M. Hasford Co.		Agency—J. Walter Thompson Co.	
Agency—The Fensholt Co.		GULF OIL CORP.	19	RAILWAY EXPRESS AGENCY	157
ALLIS-CHALMERS MFG. CO.	55	Agency—Young & Rubicam, Inc.		Agency—Fuller & Smith & Ross, Inc.	
Agency—Crompton Adv. Co.		HALL BROTHERS, INC.	92	THE RAULAND-BORG CORP.	56
ALUMINUM CO. OF AMERICA	132	Agency—Foster, Cone & Belding		Agency—George Brodsky	
Agency—Ketchum, MacLeod & Grore, Inc.		H. M. HARPER CO.	163	RAYONIER, INC.	86-87
Agency—Sutherland-Abbott		Agency—The Buchen Co.		Agency—Brooks, Smith, French & Burrance, Inc.	
AMERICAN OPTICAL CO.	16	THE E. F. HAUSERMAN CO.	100	RECONSTRUCTION FINANCE CORP.	119
Agency—Ketchum, MacLeod & Grore, Inc.		Agency—Melitrus & Fries-Smith, Inc.		Agency—Newman, Lynde Assoc., Inc.	
AMERICAN PHOTOGRAPHY EQUIPMENT	118	THE FRANK B. HOUGH CO.	82	REICHOLD CHEMICALS, INC.	91
Agency—Irving J. Rosenbloom Adv. Agency		Agency—Ervin R. Abramson		Agency—MacMann, John & Adams, Inc.	
AMERICAN TELEPHONE & TELEGRAPH CO.	127	HOUSTON PIPE LINE CO.	12	REMINGTON RAND, INC.	77
Agency—Cunningham & Walsh, Inc.		Agency—Williamson-Relietts & Tipt, Inc.		Agency—Leeford Adv. Agency, Inc.	
THE AMERICAN WELDING & MFG. CO.	81	HYATT BEARINGS DIV.	128	REVERE COPPER & BRASS, INC.	80
Agency—The Hatless-Kerr Co.		GENERAL MOTORS CORP.		Agency—St. Georges & Keyes, Inc.	
ARMSTRONG CORP.	125	Agency—Campbell-Ewald Co., Inc.		REYNOLDS METALS CO.	60
Agency—Hatten, Barton, Dursline & Osborn, Inc.		INDIANA DESK CO.	138	Agency—Buchanan & Co., Inc.	
AUTODIAGRAM REGISTERS CO.	36	INSURANCE CO. OF NORTH AMERICA	46	ROCKWELL-BARNES CO.	74
Agency—Thoma & Gill		Agency—N. W. Ayer & Son, Inc.		Agency—George H. Hartman	
AUTOMATIC ELECTRIC SALES CORP.	112	INTERNATIONAL NICKEL CO., INC.	3	SCHENLEY DISTRIBUTORS, INC.	4
Agency—Friedberg, Taylor, Inc.		Agency—Marshall & Pratt Co.		Agency—Hatten, Barton, Dursline & Osborn, Inc.	
"AUTOMATIC" SPRINKLER CORP. OF AMERICA	49	JARI PRODUCTS, INC.	80	SCOTT AVIATION CORP.	106
Agency—The Robert A. Joyce Co.		JESBOP STEEL CO.	184	Agency—Melvin F. Hall Adv. Agency, Inc.	
AUTOPUNT CO.	150	Agency—Hendt & Starr, Inc.		SHARON STEEL CORP.	114
Agency—Burkhardt & Ryan, Inc.		JOHN-MANVILLE CORP.	37, 66, 67	Agency—McLure & Wilder, Inc.	
AVCO MFG. CORP.	3	Agency—J. Walter Thompson Co.		L. C. SMITH & CORONA TYPEWRITERS, INC.	110
(LYCOMING-SPENCER DIV.)		KALAMAZOO LABEL CO.	148	Agency—Cunningham & Walsh, Inc.	
Agency—Hatten, Barton, Dursline & Osborn, Inc.		Agency—William J. Williams		SPERRY GYROSCOPE CO.	20
BARCOCK & WILCOX CO.	73	KELLER TOOL CO.	9	Agency—Chas. Dallas Brock Co., Inc.	
Agency—O. R. Tyson & Co., Inc.		THE LAMBON & SESSIONS CO.	68	STONE & WEBSTER ENGINEERING CORP.	85
BARRELED SUNLIGHT PAINT CO.	149	Agency—Helden and Hilleko		Agency—Harold Cabot & Co., Inc.	
Agency—Sutherland-Abbott		LIBERTY MUTUAL INSURANCE CO.	30	STROMBERG TIME CORP.	147
THE BERYLLIUM CORP.	93	Agency—Hatten, Barton, Dursline & Osborn, Inc.		Agency—Harty Berk	
Agency—Gray & Rogers		LINK BELT CO.	45	THE STURGIS POSTURE CHAIR CO.	107
BROWN CO.	135	Agency—Klaus-Van Pietersen-Dunlap Assoc., Inc.		Agency—Blace Adv. Agency	
Agency—Hewson-Belefort, Inc.		MCGRAW-HILL BOOK CO., INC.	161	SUN OIL CO.	83
BUNTING BRASS & BRONZE CO.	96	MCGRAW-HILL INTERNATIONAL CORP.	124	Agency—Gray & Rogers	
Agency—Hewson-Belefort, Inc.		MCGRAW-HILL PUBLISHING CO.	182-183	TAFT-PEIRCE MFG. CO.	44
THE E. W. BUSCHMAN CO.	84	MEAD CORP.	41	Agency—Rutherford-Abbott	
Agency—The R. F. Hart Co.		MELINK STEEL SAFE CO.	148	TENNESSEE PRODUCTS & CHEMICAL CORP.	2nd Cover
A. M. BYERS CO.	168	Agency—W. B. Doner & Co.		Agency—The Griswold-Eshleman Co.	
Agency—Ketchum, MacLeod & Grore, Inc.		METAL CARBIDES CORP.	100	THE TEXAS CO.	26
CELANESE CORP. OF AMERICA	113	Agency—Meek & Thomas, Inc.		Agency—Cunningham & Walsh, Inc.	
Agency—Ellington & Co., Inc.		MICRO SWITCH DIV., MINNEAPOLIS-HONEYWELL REGULATOR CO.	90	THORNTON CO.	164
CHARLESTON DEVELOPMENT BOARD	140	Agency—Hamilton Adv. Agency, Inc.		Agency—Eastburn-Riegel Adv.	
Agency—Tobias & Co.		MINNEAPOLIS-HONEYWELL REGULATOR CO.	14-15	TISSOT WATCH CO.	56
CLUES	170	Agency—Foster, Cone & Belding		Agency—Merwin J. Chasen Adv.	
COLUMBIA STEEL & SHAFING CO.	123	THE MINNEAPOLIS & ST. LOUIS RAILWAY	128	THE TODD CO.	48
Agency—Walker & Downing, General Agency		Agency—The Addison Lewis Co.		Agency—The Merrill Anderson Co., Inc.	
CONNECTICUT HARD RUBBER CO.	104	MINNESOTA MINING & MFG. CO.	87	TOWNMOTOR CORP.	8
Agency—Frost Bros.		Agency—Hatten, Barton, Dursline & Osborn, Inc.		Agency—Howard Swink Advertising Agency, Inc.	
THE COOPER-BESSEMER CORP.	145	MISSISSIPPI GLASS CO.	64	TRANS WORLD AIRLINES, INC.	70
Agency—The Griswold-Eshleman Co.		Agency—Ralph Smith Adv. Agency		Agency—Hatten, Barton, Dursline & Osborn, Inc.	
COUNTRY GENTLEMAN	75	MONSANTO CHEMICAL CO.	4th Cover	TRAVELLETTER CORP.	86
Agency—Lamb & Keen, Inc.		Agency—Gardner Adv. Co.		Agency—Moore & Co., Inc.	
CRANE CO.	69	MOBINEE PAPER MILLS CO.	63	TRUSCON STEEL DIV.	
Agency—The Buchen Co.		Agency—Klaus-Van Pietersen-Dunlap Assoc., Inc.		REPUBLIC STEEL CORP.	106
CREDIT UNION NATIONAL ASSOC.	110	MOSELER SAFE CO.	118	Agency—Renee Curtis, Inc.	
Agency—J. Walter Thompson Co.		MYSTIK ADHESIVE PRODUCTS	72	UDVLITE CORP.	131
CRESCENT CO., INC.	90	NATIONAL CITY BANK OF NEW YORK	22	Agency—Grant & Co., Inc.	
Agency—Atkins-Kennett Co.		Agency—Hatten, Barton, Dursline & Osborn, Inc.		U. S. ELECTRICAL MOTORS, INC.	148
CRUCIBLE STEEL CO. OF AMERICA	111	NATIONAL ELECTRIC PRODUCTS CORP.	13	Agency—The McCarty Co.	
Agency—G. M. Hasford Co.		THE NATIONAL MACHINERY CO.	137	UNITED STATES PLYWOOD CORP.	142
CUSHMAN & DENISON MFG. CO.	142	NATIONAL RESEARCH CORP.	106	Agency—Marshall & Pratt Co.	
Agency—R. T. O'Connell Co.		NATIONAL STARCH PRODUCTS, INC.	103	UNITED STATES RUBBER CO.	42
DORSEY SAFE-T-SHOCK CO.	120	NEKOBA-EDWARDS PAPER CO.	98	Agency—Fletcher D. Richards, Inc.	
Agency—J. Howard Allen & Co.		Agency—G. M. Hasford Co.		U. S. SAVINGS & LOAN LEAGUE	82
DOUGLAS FIRM PLYWOOD ASSOC.	100	NEW BRITAIN MACHINE CO. (GRIDLEY MACHINE DIV.)	121	Agency—Christopher, Williams & Bridges	
Agency—The Condon Co., Inc.		Agency—Wilson, Haight & Welch, Inc.		WARNER & SWABY CO.	105
E. I. du PONT de NEMOURS & CO.	143, 165	NORFOLK & WESTERN RAILWAY CO.	139	Agency—The Griswold-Eshleman Co.	
Agency—Hatten, Barton, Dursline & Osborn, Inc.		OREGON LUMBER CO.	117	WASSILL ORGANIZATION, INC.	126
DUREX PLASTICS & CHEMICALS, INC.	51	Agency—Pacific National Adv. Agency		Agency—James R. Flanagan Adv. Agency	
Agency—Comstock & Co.		OTIS ELEVATOR CO.	3d Cover	JERVIS B. WEBB CO.	101
EASTMAN KODAK CO.	106	PACIFIC INTERMOUNTAIN EXPRESS	141	Agency—L. J. DeMashaut Adv. Agency	
Agency—J. Walter Thompson Co.		Agency—Hrisacher, Wheeler & Staff		WESTINGHOUSE ELECTRIC CORP.	26-21
EBASCO SERVICES, INC.	65	PACKAGE MACHINERY CO.	89	Agency—Fuller & Smith & Ross, Inc.	
Agency—Albert Frank-Guenther Law, Inc.		Agency—John O. Powers Co.		WESTINGHOUSE ELECTRIC CORP. (LAMP DIV.)	100
THOMAS EMERY'S SONS, INC.	100			Agency—Fuller & Smith & Ross, Inc.	
Agency—Burkhardt & Ryan, Inc.				WESTON ELECTRICAL INSTRUMENT CORP. 71	
THE FEDERAL BEARINGS CO., INC.	53			Agency—G. M. Hasford Co.	
Agency—Fred Wittner Advertising				WHEELING CORRUGATING CO.	100
FINNELL SYSTEM, INC.	64			Agency—Cunningham & Walsh, Inc.	
Agency—Johnson-Thom & Co., Inc.				DAVID WHITE CO.	61
GENERAL AMERICAN TRANSPORTATION CORP.	47			Agency—Klaus-Van Pietersen-Dunlap Assoc., Inc.	
Agency—Weiss & Keller, Inc.					
GENERAL BOX CO.	130				
Agency—The Buchen Co.					
GENERAL ELECTRIC CO.	129				
Agency—G. M. Hasford Co.					
GENERAL ELECTRIC CO. (ELECTRONICS DEPT.)	10				
Agency—Mason, Inc.					

# Meeting the Danger of the Soviet Threat

Quite recently the Committee for Economic Development published a brochure entitled, "The Threat to Our National Security." This publication contains a judicious estimate of the danger of Soviet imperialism, and gives a general formula for meeting the danger. Its proposals are peculiarly pertinent right now, in view of Stalin's recent pronouncement on the international situation.

The first point which CED makes is that the Russians are in deadly earnest when they talk about the ultimate triumph of world communism. The truth of this observation could be supported by many quotations from the Communist prophets—Marx, Lenin, and Stalin. The Soviets have a quasi-religious faith that history is on their side, that no matter how events ebb and flow, eventually all nations will go Communist.

This attitude should not make us unduly pessimistic, for it does not necessarily imply that the Russians will try to destroy the free world by force. The Marxists are not committed by their ideology to a belief in any single path to their goal, and, as the CED pamphlet points out, the Soviets seem to be working according to a long-range timetable. This analysis is supported by Stalin's prediction that capitalism will go under in a war between capitalist states, rather than in a conflict between communism and capitalism.

But it does not follow that the Soviets are indifferent. On the contrary, they may be expected to give aid short of war to subversive elements everywhere, and particularly in danger spots which are affected by economic weakness or nationalist unrest. In these places, as CED notes, we have the perilous job of meeting the Communist challenge without accidentally touching off a major conflict.

This is a real and constant danger. Korea is one case in which the Russians miscalculated our intentions. There are a dozen other points where much the same problem exists. We must guard these areas without antagonizing the Russians.

## What We Need Externally

We are already engaged in elaborate aid-programs to help keep the free nations on their feet. The only trouble CED finds here is that the arrangements agreed to are not yet systematically directed toward the common goal.

It advocates, for example, more economic integration in NATO, and a real political union of the nations of Western Europe in order to make the best possible use of American aid.

It wants a long-range policy in Asia, with the introduction of much American capital along with technical assistance.

It calls for a selective reduction of our tariffs, so that our home market can be thrown open to foreign trade.

It suggests an information service which would show how our foreign policy is realistically related to world considerations, by a genuine desire to help others stave off communism.

American aid, of course, is contingent on the continuing strength of our economic system. CED points out that any serious weakening would demoralize the countries dependent on us as well as ourselves. It believes, however, that we can stand the strain as long as our international commitments remain at their present level.

Granted that the scale of the security programs is properly estimated, and that the programs themselves are efficiently carried out, can we still overcome the menace of inflation? CED thinks we can.

## What We Need Internally

In "The Threat to Our National Security" the committee prescribes the following antidotes to inflation:

- (1) "Adequate and effective taxation and credit measures . . ."
- (2) "... the most rigorous economy in postponable public expenditures."
- (3) "... curb expansion of the money supply by restraint upon bank credit."
- (4) "... self-restraint by industry and labor in demanding higher prices and wages."
- (5) "... encourage private saving."

## The Moral Problem

The analysis of our material resources shows that we can give our foreign policy a firm economic foundation. But this is not the last word on the subject. Behind political and economic facts there always lies a moral problem. The present one is: Has the free world the moral strength to struggle indefinitely against an implacable and fanatically self-confident enemy? And will the American people continue to support a policy which can promise them no immediate or striking success?

The answer to the first question almost certainly lies in the answer to the second. The ugly truth about Communist domination is so familiar by now that even the most backward nations will try to save themselves from it—as we see in the case of Iran. So the issue of communism or freedom is squarely up to us.

The members of CED are confident that America will rise to the occasion. They say in their pamphlet, "We believe that the American people will accept the role of leadership and its burdens, and will prove themselves patient and resourceful in the long and difficult task of building the peace."

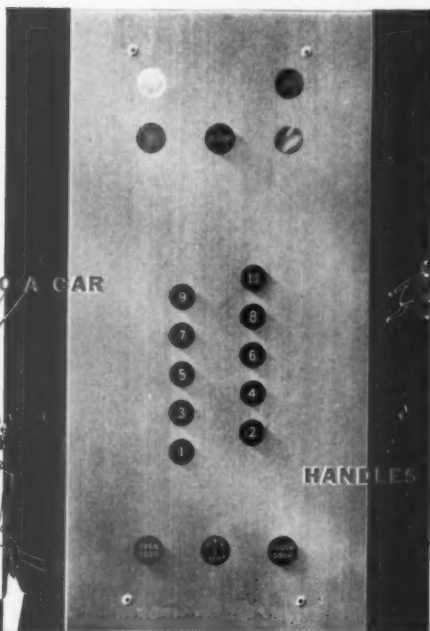
This is a heartening statement from an authoritative source. It should help to strengthen our allies' faith in us by indicating that we will stand by them just when they need our help most.



**AUTOTRONIC®**

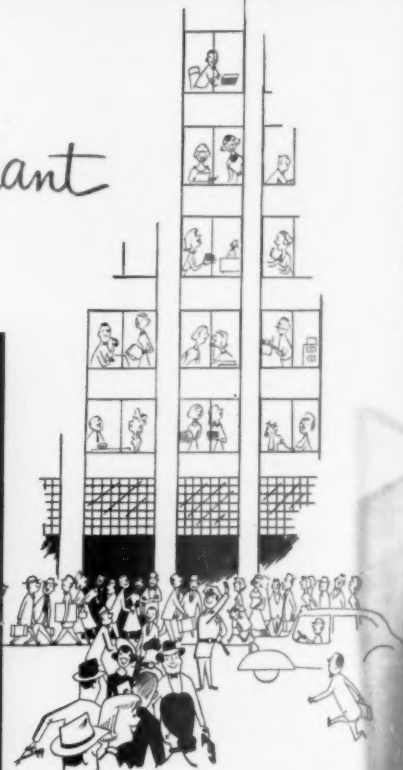
*Without Attendant*  
**ELEVATORING**

**SAVES UP TO \$5,500 A CAR**



*Simplified Car Operating Panel*

**HANDLES HEAVY BUILDING TRAFFIC**



Autotronic—WITHOUT ATTENDANT—Elevating offers the only substantial saving in building operation that is available today. It saves up to \$5,500 a car, each year.

Passengers simply step into the car and press the buttons for the floors they want. The car operation is completely automatic.

Autotronic—WITHOUT ATTENDANT—Elevating has been in successful operation for more than two years. It has proven itself in single-purpose buildings. It has handled diversified traffic to everyone's satisfaction. It has the speed and the automatic group supervisory control needed in many large buildings, yet is adaptable to small buildings. It can be used in hospitals. Its specific application is a matter of individual study.

Why not visit an actual Autotronic—WITHOUT ATTENDANT—Elevating installation in a new or modernized building? Talk with the tenants and management. Ask any of our 266 offices for details. Otis Elevator Company, 260 11th Avenue, New York 1, N. Y.

**BETTER ELEVATORING IS THE BUSINESS OF OTIS**

"Très chic..."

que elegancia  
...how smart"

On the Rue de la Paix, on 5th Avenue, Bond Street or Main Street—there's a style show in progress every hour of every day... Passing across the scene are the woolsens of Britain, the fashions of France, the styles and fabrics of America—all adding importantly to the universal appeal of fine clothing.

The contributions of America are distinctive. In part, it's the way we cut our fabrics—mostly it's the fine quality of the fabrics themselves, whether of natural fibers, synthetics or blends. In all three, Monsanto textile chemistry has a lot to do with the finished, well-dressed result. (See below for a few examples.)

So, whenever you hear the expression "how smart"—in whatever language—directed at Americans on the world's style stage, it's a salute to the American textile industry and its progressive use of textile chemicals.

MONSANTO CHEMICAL COMPANY,  
1700 South Second Street, St. Louis 4, Missouri.  
Monsanto Canada Limited, Montreal, Vancouver.

#### MONSANTO TEXTILE CHEMICALS

**For Finishing**—Duraset® and Resloom® finishes for embossed and glazed cottons... Resloom® finishes for shrinkage-resistant and washable woollens; wool-rayon blends with wrinkle resistance and lively "hand"... Syton® to give a worsted-like feel and appearance to rayon-wool blends.

Merlon® dispersions and solutions for stiff, durable "hand" in cotton dress goods and sheetings; also in woollens, synthetics... Catalyst AC for uniformity of resin application and retention, improved fabric performance... Rezgard® which meets rigid government standards as flame-retardant for cottons, synthetics.

**For Sizing**—Stymer® synthetic resin is a tough, uniform size for filament acetate, Orlon and viscose.

**For Spinning**—Syton spinning agent for woollens, worsted and wool-rayon blends. Increases yarn strength 10% to 30%, greatly improves "spinnability."

**For Scouring, Dyeing**—Santomer® and Sterox® detergents; wetting agents; tetrasodium pyrophosphate and other sodium phosphates.

\*Reg. U. S. Pat. Off.



SERVING INDUSTRY... WHICH SERVES MANKIND